RESOLUTION NO. 2021-32
RESOLUTION NO. PFA-02
ORDINANCE NO. 2021–01

AGENDA

OUR MISSION

Protect, enhance, and develop Calaveras County's water resources and watersheds to provide safe, reliable, and cost-effective services to our communities.

Regular Board Meeting
Wednesday, May 26, 2021
1:00 p.m.

Calaveras County Water District
120 Toma Court
San Andreas, California 95249

Based on guidance from the California Governor's Office and Department of Public Health, in order to minimize the potential spread of the COVID-19 virus, the Calaveras County Water District will convene its public meetings of the Board of Directors telephonically until further notice.

The following alternatives are available to members of the public to watch these meetings and provide comments to the Board before and during the meeting:

Microsoft Teams meeting
Join on your computer or mobile app
Click here to join the meeting
Or call in (audio only)
+1 689-206-0281,,147934627#
Phone Conference ID: 147 934 627#

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Administration Office at 209-754-3028. Notification in advance of the meeting will enable CCWD to make reasonable arrangements to ensure accessibility to this meeting. Any documents that are made available to the Board before or at the meeting, not privileged or otherwise protected from disclosure, and related to agenda items, will be made available at CCWD for review by the public.

ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. ROLL CALL

BOARD OF DIRECTORS

Jeff Davidson, President — Cindy Secada, Vice President
Scott Ratterman, Director — Bertha Underhill, Director — Russ Thomas, Director

2. PUBLIC COMMENT

At this time, members of the public may address the Board on any non-agendized item. The public is encouraged to work through staff to place items on the agenda for Board consideration. No action can be taken on matters not listed on the agenda. Comments are limited to three minutes per person.

3. CONSENT AGENDA

The following items are expected to be routine / non-controversial. Items will be acted upon by the Board at one time without discussion. Any Board member may request that any item be removed for later discussion.

3a Approval of Minutes for the Board Meetings of April 28 and May 12, 2021
(Rebecca Hitchcock, Clerk to the Board)

3b Report on the Monthly Investment Transactions for April 2021
(Rebecca Callen, Director of Administrative Services)

4. NEW BUSINESS

4a Discussion/Action Regarding Awarding and Authorizing a Construction Contract for the La Contenta Wastewater Treatment Plant Fence Project (CIP 15101)
(Damon Wyckoff, Director of Operations) **RES 2021-_____**

4b Discussion/Direction regarding the Enterprise Fleet Vehicles order contained in the proposed 2021/22 Fiscal Year Budget
(Damon Wyckoff, Director of Operations)

4c Introduction to Water Supply & Demand Assessments
(Brad Arnold, Manager of Water Resources)

5. REPORTS

5a* General Manager's Report
(Michael Minkler)

6.* BOARD REPORTS / INFORMATION / FUTURE AGENDA ITEMS

7. NEXT BOARD MEETINGS

- Wednesday, June 9, 2021, 1:00 p.m., Regular Board Meeting
- Wednesday, June 23, 2021, 1:00 p.m., Regular Board Meeting

8. CLOSED SESSION

8a Government Code § 54957.6 Agency Negotiators: General Manager Michael Minkler, HR Manager Stacey Lollar and Michael Jarvis Regarding Negotiations with Employee Organization SEIU Local 1021 and Management and Confidential Unit

9. REPORTABLE ACTION FROM CLOSED SESSION

10. ADJOURNMENT

*No information included in packet

CALAVERAS COUNTY WATER DISTRICT

Board of Directors

District 1	Scott Ratterman
District 2	Cindy Secada
District 3	Bertha Underhill
District 4	Russ Thomas
District 5	Jeff Davidson

Legal Counsel

Matthew Weber, Esq.
Downey Brand, LLP

Financial Services

Umpqua Bank
US Bank
Wells Fargo Bank

Auditor

Richardson & Company, LLP

CCWD Committees / Membership**

*Engineering Committee	Davidson / Thomas (alt. Secada)
*Finance Committee	Underhill / Secada (alt. Thomas)
*Legal Affairs Committee	Ratterman / Davidson (alt. Thomas)

Joint Power Authorities

ACWA / JPIA	Ratterman (alt. Michael Minkler)
CCWD Public Financing Authority	All Board Members
Calaveras-Amador Mokelumne River Authority (CAMRA)	Ratterman / Underhill (alt. Secada)
Calaveras Public Power Agency (CPPA)	Michael Minkler (Alt. Brad Arnold)
Eastern San Joaquin Groundwater Authority	Thomas
Tuolumne-Stanislaus Integrated Regional Water Management Joint Powers Authority (T-Stan JPA)	Secada (alt. Thomas)
Upper Mokelumne River Watershed Authority (UMRWA)	Davidson (alt. Ratterman)

Other Regional Organizations of Note

Calaveras LAFCO	Ratterman / Thomas
Calaveras County Parks and Recreation Committee	Thomas (alt. Ratterman)
Highway 4 Corridor Working Group	Thomas / Underhill
Mountain Counties Water Resources Association (MCWRA)	All Board Members
Mokelumne River Association (MRA)	All Board Members
Tuolumne-Stanislaus Integrated Regional Water Mgt. JPA Watershed Advisory Committee (WAC)	Brad Arnold
Eastern San Joaquin Groundwater Authority-Technical Advisory Committee	Brad Arnold

* Standing committees, meetings of which require agendas & public notice 72 hours in advance of meeting.
** The 1st name listed is the committee chairperson.

RESOLUTION NO. 2021-24
RESOLUTION NO. PFA-02
ORDINANCE NO. 2021–01

MINUTES

CALAVERAS COUNTY WATER DISTRICT
REGULAR BOARD MEETING

APRIL 28, 2021

Directors Present: Jeff Davidson, President
Cindy Secada, Vice-President
Scott Ratterman, Director
Bertha Underhill, Director
Russ Thomas, Director

Staff Present: Michael Minkler, General Manager
Matt Weber, General Counsel
Rebecca Hitchcock, Clerk to the Board
Rebecca Callen, Director of Administrative Services
Damon Wyckoff, Director of Operations
Stacey Lollar, Human Resources Manager
Jessica Self, External Affairs Manager
Brad Arnold, Manager of Water Resources
Pat Burkhardt, Construction and Maintenance Manager
Jared Gravette, Construction Inspector Sr.
Tiffany Burke, Administrative Technician Sr.
Kevin Williams, Civil Engineer
Kate Jesus, Engineering Coordinator
Richard Hibbard, SEIU President

Others Present: John Woodling, Project Manager, GEI
Maria Pascoal, Engagement & Outreach, GEI
Ellen Cross, Facilitation, Strategy Driver, GEI

ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. ROLL CALL

President Davidson called the Regular Board Meeting to order at 1:03 p.m. and led the pledge of allegiance.

2. PUBLIC COMMENT

There was no public comment.

3. CONSENT AGENDA

MOTION: Directors Secada/Ratterman–Approved Consent Agenda Item: 3a as presented.

3a Report on the Monthly Investment Transactions for March 2021
(Rebecca Callen, Director of Administrative Services)

AYES: Directors Secada, Ratterman, Underhill, Thomas, and Davidson
NOES: None
ABSTAIN: None
ABSENT: None

4. NEW BUSINESS

4a Discussion/Action regarding Adoption of the District's 2021-2026+ Strategic Plan
(Michael Minkler, General Manager) **RES 2021-24**

MOTION: Directors Underhill/Secada-Adopted the District's 2021-2026+ Strategic Plan

DISCUSSION: Mr. Minkler introduced John Woodling from GEI. Mr. Woodling thanked the Directors for the opportunity to assist the District with the creation of the 2021-2026+ Strategic Plan. He explained that the GEI team helped move the process along but staff's time investment created the final document. He also mentioned how meaningful it is to have the Board President, General Manager, and Union President sign on to the plan. Ms. Cross stated that it was very impressive to have the participation of the Union President. Mr. Minkler stated that the requested action of the Board is to approve the final Strategic Plan. There was a brief discussion between the Directors regarding the item. Director Secada would like to see future reports on how the District is using this document on a day-to-day basis.

PUBLIC COMMENT: There was no public comment.

AYES: Directors Underhill, Secada, Ratterman, Thomas, and Davidson
NOES: None
ABSTAIN: None
ABSENT: None

4b Discussion on Public Review Draft of 2020 Urban Water Management Plan Update
(Brad Arnold, Manager of Water Resources)

DISCUSSION: Mr. Arnold announced that the Draft 2020 Urban Water Management Plan Update is out for public review. He explained the concepts that were updated in the plan as well as some new requirements. He reviewed the legal notices that have been sent out and the timeline for adoption of the plan.

PUBLIC COMMENT: There was no public comment.

This item was for information only; no action was taken.

4c Discussion/Action regarding Awarding Contract for the District's Auditing Services
(Rebecca Callen, Director of Administrative Services) **RES 2021-25**

MOTION: **Directors Ratterman/Thomas-Awarded the Contract for the District's Auditing Services to Richardson & Company, LLP**

DISCUSSION: Ms. Callen reviewed the proposals that were received in response to the request for proposals for Auditing Services. Staff recommended Richardson & Company, as they most closely meet the needs of the District and requests the Board award a three-year contract for auditing services in accordance with their proposal. While Richardson & Company has been the District's Auditor for the last several years, their proposal allows for the rotation of senior staff to meet the requirements of the District's Financial Management Policy 5.13. There was discussion between the Board and Ms. Callen regarding the proposal.

PUBLIC COMMENT: There was no public comment.

AYES: **Directors Ratterman, Thomas, Secada, Underhill, and Davidson**
NOES: **None**
ABSTAIN: **None**
ABSENT: **None**

4d Discussion/Action regarding the purchase of Maintenance and Warehouse Building Pre-Engineered Metal Building CIP #11101
(Kevin Williams, Civil Engineer) **RES 2021-26**

MOTION: **Directors Ratterman/Underhill-Approved the Purchase of the Maintenance and Warehouse Building Pre-Engineered Metal Building**

DISCUSSION: Mr. Williams stated that a Request for Proposals (RFP) for the Maintenance and Warehouse Pre-Engineered Metal Building Package included a 9,600 square foot (160'x60') metal building shell complete with doors, windows and metal partisan wall separating the mechanics area from the warehouse area. The building and foundation design is included with the building package purchase. He explained that staff has found the bid from The Steel Builder to be the lowest responsive and responsible proposal fully conforming to the requirements of the RFP. Staff recommends awarding the Maintenance and Warehouse Pre-Engineered Metal Building purchase to The Steel Builder, of Chico, CA in the amount of $135,488. There was significant discussion about the proposal, additional expected costs, and price increases on metal buildings. Mr. Williams explained upon receiving the metal building design drawings from the building manufacture, the District will be applying for a Building Permit. During the building permitting review period the District will be soliciting a construction bid for the building pad, concrete slab/foundation and building erection. Project completion is anticipated to occur before the end of FY 2022-23.

PUBLIC COMMENT: There was no public comment.

AYES: **Directors Ratterman, Underhill, Secada, Thomas, and Davidson**
NOES: **None**
ABSTAIN: **None**
ABSENT: **None**

4e Discussion/Action regarding Renewal of the Lease Agreement for the Courtright/Emerson Memorial Ballpark at White Pines
(Michael Minkler, General Manager) **RES 2021-27**

MOTION: **Directors Secada/Underhill-Approved the Renewal of the Lease Agreement for the Courtright/Emerson Memorial Ballpark at White Pines**

DISCUSSION: There was no discussion on this item.

PUBLIC COMMENT: There was no public comment.

AYES: Directors Ratterman, Secada, Underhill, Thomas, and Davidson
NOES: None
ABSTAIN: None
ABSENT: None

5. OLD BUSINESS

5a Discussion/Direction regarding Presentation of the Quarterly Investment Reports (Rebecca Callen, Director of Administrative Services)

DISCUSSION: Ms. Callen addressed the Board regarding the Quarterly Investment Reports. The District has started transitioning part of the treasury to Chandler Asset Management for investing. With this shift, the treasury is now separated into a passive investment model, focusing on LAIF (Local Agency Investment Fund) and an active portfolio under Chandler. The Board has the option to receive the reports, included with this item as a formal presentation, have the formal presentation made to the Finance Committee, or receive a report on consent quarterly for review. The monthly investment activity will continue to come to the Board the second meeting of every month. The Board spoke to Ms. Callen about their preferences on receiving this report. They gave Ms. Callen direction to take the presentation to the Finance Committee each quarter and to the full Board once a year.

PUBLIC COMMENT: There was no public comment.

This item was for information only; no action was taken.

6. REPORTS

6a General Manager's Report
(Michael Minkler)

DISCUSSION: Mr. Minkler reported on the following activities: 1) he attended a Voluntary Agreement Workshop; 2) the CPPA Board meeting announced there would be a 6% rate increase; 3) staff is in budget and CIP preparation mode; 4) there is a White Pines Lake cleanup day on May 1, 2021; and 5) preparations are being made for an in-person town hall meeting.

7. BOARD REPORTS / INFORMATION / FUTURE AGENDA ITEMS

Director Underhill wished Director Davidson a happy birthday and asked about the timing of the ACWA JPIA rebates.

Director Ratterman discussed the upcoming Mountain Counties meeting on May 14th and the CAMRA meeting on May 19th.

Director Thomas reported that he attended the Calaveras County Parks and Recreation meeting.

Director Secada would like to see the District create payment terms for rate payers that have past due balances.

Director Davidson thanked everyone for the birthday wishes and congratulated Director Underhill on her quick recovery from knee surgery.

8. NEXT BOARD MEETINGS

- Wednesday, May 12, 2021, 1:00 p.m., Regular Board Meeting
- Wednesday, May 26, 2021, 1:00 p.m., Regular Board Meeting

The meeting adjourned into Closed Session at approximately 2:33 p.m. Those present were Board Members: Russ Thomas, Cindy Secada, Bertha Underhill, Jeff Davidson, and Scott Ratterman; staff members Michael Minkler, General Manager, Stacey Lollar, Human Resources Manager (for item 9b), Michael Jarvis, LCW (for 9b) and General Counsel, Matt Weber.

9. CLOSED SESSION

9a Conference with Legal Counsel-Anticipated Litigation
Significant Exposure to Potential Litigation-Government Code § 54956.9(d)(2)-1 case

9b Government Code § 54957.6 Agency Negotiators: General Manager Michael Minkler, HR Manager Stacey Lollar and Michael Jarvis Regarding Negotiations with Employee Organization SEIU Local 1021 and Management and Confidential Unit

10. REPORTABLE ACTION FROM CLOSED SESSION

The Board reconvened into Open Session at approximately 3:59 p.m. There was no reportable action.

11. ADJOURNMENT

With no further business, the meeting adjourned at approximately 4:00 p.m.

Respectfully Submitted:

Michael Minkler
General Manager

ATTEST:

Rebecca Hitchcock
Clerk to the Board

RESOLUTION NO. 2021-28
RESOLUTION NO. PFA-02
ORDINANCE NO. 2021–01

MINUTES

CALAVERAS COUNTY WATER DISTRICT
REGULAR BOARD MEETING

MAY 12, 2021

Directors Present: Jeff Davidson, President
Cindy Secada, Vice-President
Scott Ratterman, Director
Russ Thomas, Director

Directors Absent: Bertha Underhill, Director

Staff Present: Michael Minkler, General Manager
Matt Weber, General Counsel
Rebecca Hitchcock, Clerk to the Board
Rebecca Callen, Director of Administrative Services
Damon Wyckoff, Director of Operations
Pat Burkhardt, Construction and Maintenance Manager
Brad Arnold, Manager of Water Resources
Jessica Self, External Affairs Manager
Stacey Lollar, Human Resources Manager
Deja Howarth, Human Resources Technician
Bob Godwin, Civil Engineer, Sr.
Sam Singh, Engineering Tech
Kate Jesus, Engineering Coordinator
Tiffany Burke, Administrative Technician Senior

Others Present: Tyler Mayo
Katie Cole
Ralph Copeland
Michelle Finch
Nolan Meyer

ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. ROLL CALL

President Davidson called the Regular Board Meeting to order at 1:01 p.m. and led the Pledge of Allegiance.

2. PUBLIC COMMENT

There was no public comment.

3. CONSENT AGENDA

MOTION: Directors Ratterman/Secada–Approved Consent Agenda Item: 3a, 3b, 3c, and 3d as presented.

3a Approval of Minutes for the Board Meeting of April 14, 2021

3b Review Board of Directors Monthly Time Sheets for April 2021

3c Ratify Claim Summary #590 Secretarial Fund in the Amount of $1,612,155.69 for April 2021
(Rebecca Callen, Director of Administrative Services) **RES 2021-28**

3d Consider Acceptance of an Easement and related Agreement for 462 La Contenta Drive
(Damon Wyckoff, Director of Operations) **RES 2021-29**

AYES: Directors Ratterman, Secada, Thomas, and Davidson
NOES: None
ABSTAIN: None
ABSENT: Director Underhill

4. PUBLIC HEARING

President Davidson Opened the Public Hearing at 1:05 pm.

4a Accept Public Comment on the District's Draft 2020 Urban Water Management Plan Update
(Brad Arnold, Manager of Water Resources)

Mr. Arnold gave a review of the District's Draft Urban Water Management Plan (UWMP) update that has been prepared and disseminated for public review and is due to the California Department of Water Resources by July 1st. The District is required to update its Plan every five years and involves public outreach as part of the required update. Public comment is accepted through May 21st and staff will respond accordingly. Public comment will be incorporated into the final UWMP and will be provided to the Board of Directors for consideration and adoption on June 23, 2021. There was discussion between the Board and staff regarding the plan.

PUBLIC COMMENT: Ralph Copeland stated that upon his initial review of the document, he thinks it is very well written and seems to be a complete report. He looks forward to providing comments after his review is complete.

President Davidson Closed the Public Hearing at 1:28 pm.

5. NEW BUSINESS

5a Discussion/Action regarding support for CAL FIRE funding opportunity for West Point Fuel Reduction Project
(Jessica Self, External Affairs Manager) **RES 2021-30**

MOTION: Directors Secada/Ratterman-Authorized Submittal of an Application to the CAL FIRE Grant Program.

DISCUSSION: Ms. Self advised the Board that CAL FIRE is seeking applications for projects focused on fire prevention throughout the state. District staff recommend seeking funding to support the West Point Fuel Reduction Project, which proposes treatment of approximately thirty acres of District property.

PUBLIC COMMENT: There was no public comment.

AYES: **Directors Secada, Ratterman, Thomas, and Davidson**
NOES: **None**
ABSTAIN: **None**
ABSENT: **Director Underhill**

5b Discussion/Action Regarding the Adjustment of the Capital Improvement Program Budget
(Rebecca Callen, Director of Administrative Services and Damon Wyckoff, Director of Operations) **RES 2021-31**

MOTION: **Directors Ratterman/Secada-Approved the Adjustment to the Capital Improvement Budget**

DISCUSSION: Mr. Wyckoff explained that the materials contractor for the Ebbetts Pass Redwood Tank Replacement Project has asked for a 30 percent upfront payment for the projects raw materials. This upfront payment will secure the pricing and place the District in the manufacturers queue for the fabrication of 5 new steel water storage tanks.

PUBLIC COMMENT: There was no public comment.

AYES: **Directors Ratterman, Secada, Thomas, and Davidson**
NOES: **None**
ABSTAIN: **None**
ABSENT: **Director Underhill**

6. REPORTS

6a Report on the April 2021 Operations and Engineering Departments
(Damon Wyckoff, Director of Operations)

DISCUSSION: Mr. Wyckoff presented the April 2021 monthly Operations and Engineering reports. He reviewed items of interest with special note of the large amount of line locates in April and answered questions from the Board.

PUBLIC COMMENT: There was no public comment.

6b General Manager's Report
(Michael Minkler)

DISCUSSION: Mr. Minkler reported on the following activities: 1) the draft budget will be presented to the Finance Committee next week; 2) a meeting between the District, Calaveras County, the White Pines Park Committee, the Moose Lodge, the Courtwright-Emerson Ballpark, and the Car Show organizers regarding the Blagen Road Bridge rehabilitation; 3) the Bureau of Reclamation meeting yesterday; 4) the District is planning a Town Hall meeting in Copperopolis on May 25 at the Black Creek HOA; and 5) the State drought declaration.

7. BOARD REPORTS / INFORMATION / FUTURE AGENDA ITEMS

Director Ratterman reported he would still like an update on the Districts cyber security assessment. He will be attending the Mountain Counties meeting on Friday the 14th and CAMRA on Wednesday the 19th. He also feels the CIP was way too aggressive last year and he would like to see the District scale back.

Director Thomas asked about confirming the location for the town hall.

Director Secada asked about cyber threats and would also like to see the CIP scaled back. She also reported that she will attend the IRWM meeting next week.

Director Davidson had nothing to report.

8. NEXT BOARD MEETINGS

- Wednesday, May 26, 2021, 1:00 p.m., Regular Board Meeting
- Wednesday, June 9, 2021, 1:00 p.m., Regular Board Meeting

The meeting adjourned into Closed Session at approximately 2:06 p.m. Those present were Board Members: Russ Thomas, Cindy Secada, Jeff Davidson, and Scott Ratterman; staff members Michael Minkler, General Manager, Damon Wyckoff, Director of Operations (for item 9a), Stacey Lollar, Human Resources Manager; Michael Jarvis, LCW Negotiator (for item 9c) Suzanne Solomon, LCW (for item 9d); and General Counsel, Matt Weber.

9. CLOSED SESSION

9a Conference with Real Property Negotiators Government Code § 54956.8
Property: APN 098-034-010 477 Bret Harte Dr. Copperopolis
District negotiators: Michael Minkler and Damon Wyckoff
Under negotiations: price and other terms

9b Conference with Real Property Negotiators Government Code § 54956.8
Property: APN 012-011-011 West Point
District negotiators: Michael Minkler
Under negotiations: price and other terms

9c Government Code § 54957.6 Agency Negotiators: General Manager Michael Minkler, HR Manager Stacey Lollar and Michael Jarvis Regarding Negotiations with Employee Organization SEIU Local 1021 and Management and Confidential Unit

9d Conference with Legal Counsel-Anticipated Litigation
Significant Exposure to Potential Litigation-Government Code § 54956.9(d)(2)-3 cases

10. REPORTABLE ACTION FROM CLOSED SESSION

The Board reconvened into Open Session at approximately 4:08 p.m. There was no reportable action.

11. ADJOURNMENT

With no further business, the meeting adjourned at approximately 4:08 p.m.

Respectfully Submitted:	ATTEST:
Michael Minkler General Manager	Rebecca Hitchcock Clerk to the Board

Agenda Item

DATE: May 26, 2021

TO: Michael Minkler, General Manager

FROM: Rebecca Callen, Director of Administrative Services

SUBJECT: Report on the Monthly Investment Transactions for April 2021

RECOMMENDED ACTION:

For information only.

SUMMARY:

Per the District's Investment Policy, Staff will report the monthly investment activity for the preceding month. During the month of April 2021, the following investment transactions occurred:

Description	Date	Type	Amount
Money Market Fund (Cash)	4/1/2021	Dividend	17.01
Toyota Motor Credit Corp Note	4/6/2021	Purchase	59,951.40
Inter-American Dev Bank Note	4/13/2021	Purchase	204,061.10
Local Agency Investment Fund State Pool	4/15/2021	Dividend	28,633.51
Hyundai Auto Receivables Trust 2021-A A3	4/20/2021	Purchase	44,995.27
Toronto Dominion Bank Note	4/23/2021	Purchase	212,354.00
John Deere Owner Trust 2021-A A3	4/26/2021	Paydown	12.25
Intl. Bank Recon & Development Note	4/28/2021	Interest	1,000.00
Umpqua Money Market	4/30/2021	Interest	33.68
US Treasury Note	4/30/2021	Interest	4,000.00
US Treasury Note	4/30/2021	Interest	500.00
US Treasury Note	4/30/2021	Interest	750.00

LAIF rates are 0.32% as of 4/30/2021, down from as high as 2%. These rates continue to decline and as a result the District has begun transitioning funds to Chandler Asset Management to ensure continued growth in with investable reserves.

Staff continues monitoring cash flow to ensure operational needs are met and excess funds are invested accordingly. Quarterly investment reports will be presented to the Finance Committee at the meeting following quarter end.

Attachment: Investment Activity Report for April 2021

CALAVERAS COUNTY WATER DISTRICT
INVESTMENT ACTIVITY
FOR THE MONTH ENDING APRIL 30, 2021

INVESTMENT TRUSTEE/TYPE	MARKET VALUE	INVESTMENT COST				CM INTEREST AND DIVIDEND RECVD
		COST	PAR (PRINC)	CPN RATE	DATE INVST	
Umpqua Bank Money Market	819,564.66	819,564.66	819,564.66	0.050%	ongoing	**33.68**
Local Agency Investment Fund	21,572,840.96	21,572,840.96	21,572,840.96	0.320%	ongoing	**28,633.51**
Chandler Asset Management	9,951,491.02	9,988,669.79	9,885,366.04	0.410%	2/17/2021	**6,279.26**
Totals	**32,343,896.64**	**32,381,075.41**	**32,277,771.66**			**34,946.45**

Description	Date	Type	Amount
Money Market Fund (Cash)	4/1/2021	Dividend	17.01
Toyota Motor Credit Corp Note	4/6/2021	Purchase	59,951.40
Inter-American Dev Bank Note	4/13/2021	Purchase	204,061.10
Local Agency Investment Fund State Pool	4/15/2021	Dividend	28,633.51
Hyundai Auto Receivables Trust 2021-A A3	4/20/2021	Purchase	44,995.27
Toronto Dominion Bank Note	4/23/2021	Purchase	212,354.00
John Deere Owner Trust 2021-A A3	4/26/2021	Paydown	12.25
Intl. Bank Recon & Development Note	4/28/2021	Interest	1,000.00
Umpqua Money Market	4/30/2021	Interest	33.68
US Treasury Note	4/30/2021	Interest	4,000.00
US Treasury Note	4/30/2021	Interest	500.00
US Treasury Note	4/30/2021	Interest	750.00

CALAVERAS COUNTY WATER DISTRICT
CHANDLER ASSET MANAGEMENT
FOR THE MONTH ENDING APRIL 30, 2021

INVESTMENT TRUSTEE/TYPE	MARKET VALUE	INVESTMENT COST			Dividends Earned	Interest Earned	Accrued Interest on Sales	Accrued Interest on Purchases	Net Income
		BOOK	PAR Vale/Units	CPN RATE					
Agency Securities	1,185,095.20	1,193,780.89	1,200,000.00	0.54%	-	-	-	-	-
Asset Backed Security	79,919.72	79,988.82	80,000.00	0.38%	-	-	-	-	-
Corporate Securities	2,016,094.94	2,019,596.56	1,945,000.00	0.59%	-	12.25	-	-	12.25
Money Market Fund (Cash)	2,455,366.04	2,455,366.04	2,455,366.04	0.01%	17.01	-	-	-	17.01
Supernational Securities	599,405.92	601,712.32	605,000.00	0.75%	-	1,000.00	-	(1,987.50)	(987.50)
US Treasury	3,615,609.20	3,638,225.16	3,600,000.00	0.48%	-	5,250.00	-	-	5,250.00
Totals	**9,951,491.02**	**9,988,669.79**	**9,885,366.04**	**0.41%**	**17.01**	**6,262.25**	**-**	**(1,987.50)**	**4,291.76**

Agenda Item

DATE: May 26, 2021

TO: Michael Minkler, General Manager

FROM: Damon Wyckoff, Director of Operations

SUBJECT: Discussion/Action Regarding Awarding and Authorizing a Construction Contract for the La Contenta Wastewater Treatment Plant Fence Project (CIP 15101)

RECOMMENDED ACTION:

Motion ____/____ adopting Resolution No. 2021-__ awarding a Construction Contract to Daries Fence & Construction, LLC. and authorizing the General Manager to execute said Contract for the La Contenta Wastewater Treatment Plant Fence Project.

SUMMARY:

The fence perimeter project is included in the La Contenta Spray Field Project (CIP 15101), which is identified in the FY 2020/21 5-Year CIP Budget. This scope of work includes:

- Installing 6,000 liner feet of 48-inch non-climb fence with 4 strands of barbed wire.
- Heavy duty 96” T-Posts will be used bringing the total fence height to 72-inches.
- Corner bracing will be concreted in addition to a concreted line post every 100-feet maximum.
- Fabricate and install 3-12-feet by 6-feet gates.
- Additional bracing to ensure adequate fence stability.
- Fire protection is included for the full duration of the project with water provided by CCWD.

The District prepared a scope for the project and started advertising for public bid April 28, 2021. Two bids were received on the bid opening date, May 14, 2021 at 2 PM.

Daries Fence & Construction, LLC	$113,887.50
Richter Fence Construction	$156,899.40

The lowest bid was submitted by Daries Fence & Construction, LLC. for a cost of $113,887.50. The District budgeted $200,000 in the 2020/21 Fiscal Year CIP for this Project.

FINANCIAL CONSIDERATIONS:

Staff recommends that the Board of Directors accept the bid submitted and award a construction contract to Daries Fence & Construction, LLC and authorize the General Manager to execute said contract for the total amount of $113,887.50.

Attachments: *Resolution 2021-___ Awarding Construction Contract for the La Contenta Wastewater Treatment Plant Fence Project, CIP 15101*
Daries Fence & Construction, LLC Bid

RESOLUTION NO. 2021-

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CALAVERAS COUNTY WATER DISTRICT

AWARDING CONSTRUCTION CONTRACT TO DARIES FENCE & CONSTRUCTION, LLC FOR THE LA CONTENTA WASTEWATER TREATMENT PLANT FENCE PROJECT, CIP 15101

WHEREAS, upon advertising and conducting a public bid opening on April 28, 2021, the District received two (2) bids for the La Contenta Wastewater Treatment Plant Fence Project with the lowest bid of $113,887.50 submitted by Daries Fence & Construction, LLC; and

WHEREAS, the District budgeted $200,000 in the 2020/21 Fiscal Year CIP for this project; therefore the proposal is $86,112.50 under-budget; and

WHEREAS, Staff advises that Daries Fence & Construction, LLC is a responsive and responsible bidder; and

NOW, THEREFORE BE IT RESOLVED, the Board of Directors of the CALAVERAS COUNTY WATER DISTRICT accepts the bid and awards a contract to Daries Fence & Construction, LLF as the lowest bidder and authorizes the General Manager to execute said contract in the amount of $113,687.50 for the La Contenta Wastewater Treatment Plant Fence Project, CIP # 15101.

PASSED AND ADOPTED this the 26th day of May, 2021 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

CALAVERAS COUNTY WATER DISTRICT

_____
Jeff Davidson, President
Board of Directors

ATTEST:

_____
Rebecca Hitchcock
Clerk to the Board

Agenda Item

DATE: May 26, 2021

TO: Michael Minkler, General Manager

FROM: Damon Wyckoff, Director of Operations

SUBJECT: Discussion/Direction regarding the Enterprise Fleet Vehicles order contained in the proposed 2021/22 Fiscal Year Budget

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RECOMMENDED ACTION:

Motion:_____/_____ by Minute Entry to order Enterprise fleet vehicles proposed in the 2021/22 Fiscal Year budget now to secure their delivery.

SUMMARY:

The District is in the process of replacing its aged vehicle fleet through a lease-to-own program administered by Enterprise Fleet Management. This process, which is currently in its second year, has replaced 18 District vehicles and improved the overall reliability of the District's fleet.

The current vehicle market is very fluid, and demand exceeds supply. To ensure CCWD can secure vehicles for the next round of replacements the order needs to be placed by May 31, 2021.

The proposed 2021/22 Fiscal Year Budget contains the next phase of planned replacements. Six Ford F150's, three Ford F350's, and one Ford F550 (ten vehicles total) are planned to be ordered through Enterprise. To meet this objective and ensure the District can receive the next phase of vehicles, staff request the Board provide direction to order the vehicles now prior to adoption of the 2021/22 Fiscal Year budget.

FINANCIAL CONSIDERATIONS:

There is no budget amendment requirement currently. By ordering the vehicles now the District obligates funds contained in the proposed 2021/22 Fiscal Year budget toward the lease-to-own of the vehicles prior to overall budget adoption. The proposed budget allocation is $138,880.

Agenda Item

DATE: May 26, 2021

TO: Board of Directors

FROM: Brad Arnold, Water Resources Program Manager

SUBJECT: Introduction to Water Supply & Demand Assessments

INFORMATION ITEM:

Receive and discuss information regarding proposed procedures for evaluating Calaveras County Water District's (CCWD) water supply and demand conditions, including an overview of 2021 hydrologic conditions. This is an information-only item and no action is required, although the CCWD Board of Directors (Board) may provide direction on these aspects under CCWD's 2020 Urban Water Management Plan Update effort.

SUMMARY:

CCWD has been preparing an update to its Urban Water Management Plan (UWMP), per California Water Code (Water Code) requirements to update its UWMP every 5 years. CCWD is required to review, adopt, and submit the updated UWMP to the California Department of Water Resources (DWR) by July 1, 2021. This 2020 update cycle also requires CCWD to develop and adopt a Water Shortage Contingency Plan (WSCP), which defines how CCWD will implement DWR's state-wide drought water shortage stages and defines how CCWD will provide water use notices, implement water conservation members, and engage with the public during future drought conditions. Starting in 2022, the Water Code will require CCWD to submit to DWR an evaluation of its available water supplies and demands on an annual basis (called the "Water Supply and Demand Assessments" or "WSDAs"), used to review and justify the need for the water shortage stages and actions defined in the WSCP . The WSCP must include an overview of the methodologies and procedures intended for standardization of these future WSDAs. A copy of the draft methodology is provided in Attachment A.

CCWD's proposed 2020 UWMP Update, WSCP, and WSDA Procedures are currently under review, and the feedback received during the public review period (which ended May 21, 2021) is being addressed. Prior to adoption of these documents by the Board, a trial, non-binding WSDA is being provided for verification of needed inputs and resulting analyses. Given the ongoing 2021 drought, the WSDA has the added bonus of providing a better understanding of current Calaveras County (County) conditions and any CCWD water supply concerns in its service areas.

WSCP Shortage Stages

A copy of the proposed water shortage stages from the WSCP is provided in Attachment B, for reference. The WSCP defines several shortage actions corresponding with these stages that CCWD may enact in order to reduce its consumptive demands in response

to progressively more severe water shortage conditions. The list of actions is not exhaustive, and the Board may elect to pursue more or less aggressive actions specific to specific or all CCWD service areas, as needed. The triggers for these stages are also subject to state and/or County conservation mandate(s) or other water use restrictions.

Draft WSDAs

Draft WSDAs for each of CCWD's service areas are provided in Attachment C. These reflect generalized analyses of service area water supply availability, historic water intake and treatment data, authorized and (estimated) unauthorized consumption used to break down monthly CCWD supplies and demands and where supply or other issues may arise. The WSDAs reflect a high-level assessment of inflows and customer demands and should be taken to highlight needs for operational changes, additional water supply utilization, or other measures. The UWMP provides some insights into hydrologic year-type supplies and demands (see Section 7), and with historic service area data trends, facilitates the assessment of potential water supply conditions.

Several of the draft WSDAs indicate the possibility of a minor water supply shortage in certain months where supply intakes are not greater than or equal to uses and losses. In most cases, CCWD has the available water rights and supplies to increase its intake and to utilize system storage (e.g., in-system storage tanks) to mitigate supply issues. However, CCWD may reflect on these data to promote voluntary water conservation measures and to justify water use efficiency coordination with County users.

The Wallace Service Area (Wallace), a groundwater-only area located in the northwestern part of the County overlying the Eastern San Joaquin Groundwater Subbasin (Subbasin), has the potential for Stage 2 triggers. The UWMP details several concerns with this area being reliant solely on aging infrastructure and use of a 'critically over-drafted' Subbasin. CCWD is actively investigating opportunities to secure supplemental surface water supplies for this area. In the meantime, CCWD may encourage water conservation measures or could impose water use restrictions specific to this service area as needed to address conditions during the ongoing drought.

WSDA Disclaimers:

- The WSDAs are assessed on a CCWD Fiscal Year (FY) basis (July 1 through June 30), consistent with the analysis performed in the 2020 UWMP Update and WSCP.
- Per the Water Code, the WSDAs must assume a subsequent dry year used to illustrate potential conditions if drought or other dry conditions persist. The attached WSDAs illustrate the potential water supply conditions in CCWD's service areas during the remaining months of FY 2021 and FY 2022 - starting July 1, 2021 - if it is assumed that dry conditions continue (i.e., a dry Winter 2021-2022).
- The WSDAs only provide a recommendation of potential shortage stages based on these assumptions. CCWD will ultimately determine the appropriate shortage stages and when to enact based on available supplies and hydrologic conditions.
- The draft WSDAs provided in Attachment C are an example of the methodology and procedures proposed in the WSCP, applied to 2021 conditions. The WSDA Procedures may be altered before the final WSCP is adopted by the Board. The WSDAs are not due in 2021 and will therefore not be submitted to DWR.

Drought Conditions

CCWD actively compiles data and information reports which provide up-to-date hydrologic conditions for the County. This information is contained in the "Calaveras County Public Water Resources Data Packets" (Data Packets), available daily on the CCWD website at: https://ccwd.org/water-resources/public-data-packet/

The Data Packets have highlighted the pervasive drought conditions in the County and the uncharacteristically dry conditions across California. Note current accumulated precipitation figures are only around 55 to 60 percent of long-term average annual estimates, most County reservoir facilities are well below average for this date, and most of California is either in 'Extreme Drought' or 'Exceptional Drought' conditions (according to US Drought Monitor). On May 12, 2021, the California Governor declared a drought emergency for several counties in California, including Calaveras County. The State Water Resources Control Board (SWRCB) has also mailed notices to CCWD and other water rights holders in California, advising these agencies to plan for potential shortages and curtailments as a result of the ongoing drought conditions.

CCWD is fortunate to have several water rights, water supply agreements, and adequate storage to ensure reliable water supply for its service areas. In general, water supplies made available to CCWD for use should allow for appropriate adjustments to be made to prevent any of the issues highlighted in the draft WSDAs. CCWD will continue to monitor potential SWRCB curtailment activities and may also update the WSDA Procedures or data to more accurately reflect service area systems capabilities or other factors. CCWD anticipates coordinating with County officials and other water suppliers in order to promote water conservation activities, and will engage with the public on drought-related topics as needed.

FINANCIAL CONSIDERATIONS:

None at this time.

Attachments: *A) Proposed WSDA Procedures*
B) Proposed WSCP Shortage Stages
C) Draft Service Area WSDAs

PUBLIC REVIEW DRAFT

Under public review through May 21, 2021 at 5:00pm. Planned adoption by CCWD Board of Directors with 2020 Urban Water Management Plan Update package.

WATER SUPPLY AND DEMAND ASSESSMENT (WSDA) PROCEDURES

Guidance of Annual WSDA Submissions for Compliance with Water Code §10632

Released June 2021

Calaveras County Water District
120 Toma Court, San Andreas, CA 95249

1 Introduction

Calaveras County Water District (CCWD/District) frequently performs assessments, evaluations, and reporting of its available water resources, aimed at ensuring adequate supplies are reliably available for its service areas' demands across Calaveras County (County). The District's Urban Water Management Plan (UWMP) provides information related to these concepts, reviewing different planning and forecast scenarios which may impact CCWD's key water sources. The Urban Water Management Planning Act (Act) requires the UWMP be updated every five-years, in order to ensure consistency with the California Water Code (Water Code) and state legislative priorities. For the latest 2020 update cycle, a new component of the UWMP includes the Water Shortage Contingency Plan (WSCP), a separately adopted "sub-plan" which outlines specific actions for how CCWD will prepare for and respond to water shortage conditions. Adoption of the WSCP by the CCWD Board of Directors (Board) grants the District the authority to implement specific shortage actions, as outlined in the WSCP (e.g., more aggressive water conservation measures, water use restrictions), when specific "water shortage stages" (Shortage Stages) are activated. While the WSCP defines the methodology for determining appropriate preparatory and responsive actions by the District for the Shortage Stages, a critical component of those efforts remains the ongoing monitoring and assessment of water supply conditions to accurately identify and activate those stages.

To address these considerations, the amended Act, as defined under Water Code §10632.1, establishes a Water Supply and Demand Assessment (WSDA) component of the WSCP. The WSDA is intended to provide a standardized methodology by which to assess annual water supplies and demands, and a formulaic approach to ensure consistent data inputs are utilized in activating a Shortage Stage. Following the 2020 UWMP Update (hereinafter referred to as the "UWMP", unless otherwise specified), urban water suppliers, including CCWD, will be required to submit annual WSDA data to the California Department of Water Resources (DWR), by June 1 of each year starting in 2022. This appendix to the WSCP defines CCWD's WSDA methodology and procedural approach to fulfill the annual submission requirement; and may be amended outside of the UWMP and/or WSCP process in order to reflect new CCWD data collection procedures, infrastructure, or changing Water Code requirements, as defined under **Section 7. Figure 1** illustrates the general approach and connection to the UWMP and WSCP contents.

1.1 WSDA Objectives

The WSDA is intended to achieve the following objectives:

1. Improve water supply reliability in the urban sector;
2. Assist in drought water supply planning for urban water suppliers, and
3. Support coordination and consistency between urban stakeholders via WSDA guidance supported by DWR.

Water supply reliability and drought preparedness are directly supported by consistent monitoring of County-wide conditions. The methodology defined in this document also provides other urban stakeholders and DWR the information to directly compare their planning and monitoring processes with CCWD, thereby facilitating a broader understanding of regional and

state-wide conditions. Specific Shortage Actions planned by CCWD shall remain defined by the latest District-adopted WSCP.

These objectives are consistent with the Water Code and DWR's "Urban Water Management Plan Guidebook 2020" (Guidebook), used to assist urban water suppliers with the preparation of compliant UWMP and WSCP materials, as shown in **Table 1** below:

Table 1. WSDA Content Requirements

Water Code Section	Guidebook Location	Summary
10632(a)(2)(A)	Section 8.2	Provide the written decision-making process and other methods that the supplier will use each year to determine its water supply reliability.
10632(a)(2)(B)	Section 8.2	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the Water Code.

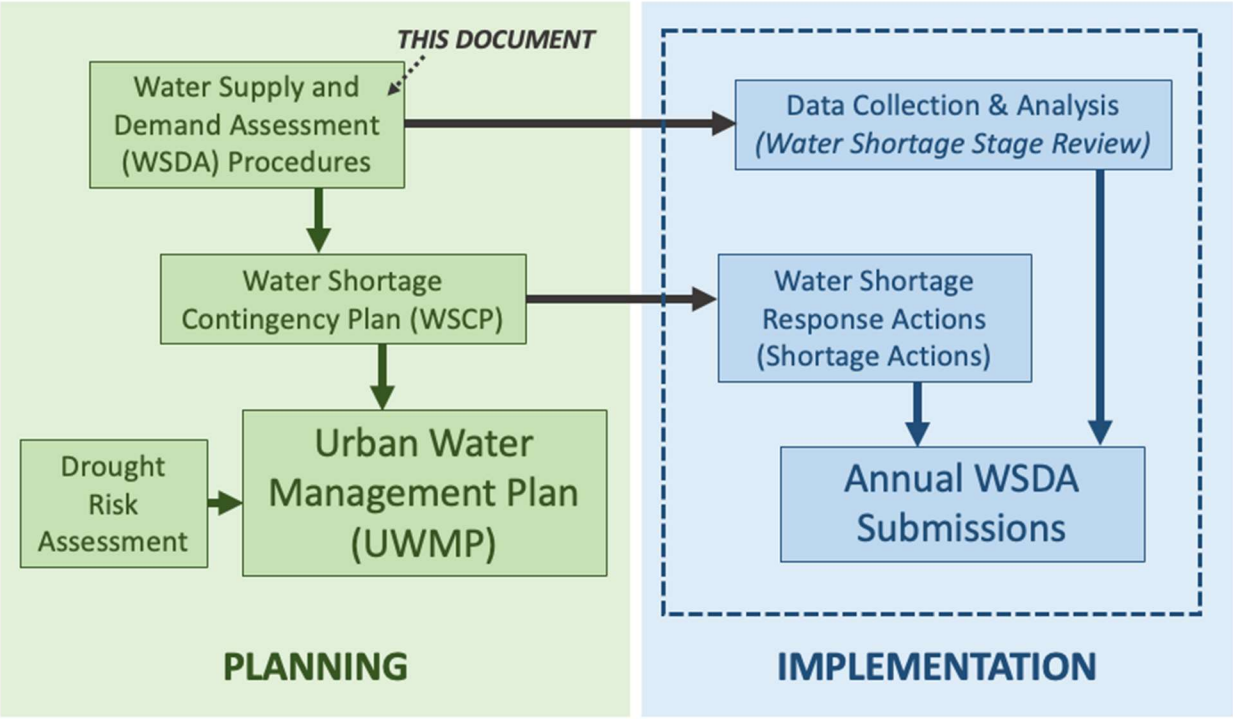


Figure 1. UWMP, WSPC, and WSDAs Components of UWMP Process

1.2 Water Supply Reliability

For the purposes of the District WSDAs, water supply reliability is defined as follows:

> *The measure of consistency by which available water supply resources will be greater than or equal to the demands for those water supplies over defined time periods.*

The measure of consistency of fulfilling system demands, over a selected time period, can be defined in terms of the fraction of CCWD's demands satisfied by the available supplies. In this WSDA, units are expressed as volumetric supply and demand figures over a year, in terms of acre-feet per year (AFY). Unless otherwise specified, all data reported in the WSDAs are on a District 'Fiscal Year' (FY) basis, following the District's FY calendar which starts July 1 and ends on the following June 30. Factors which adversely impact the consistency of a water supply system's capability of fulfilling its demands includes decreases in the amount of available water supply resources, described in **Chapter 7** of the UWMP, and/or failures of that system's physical components. In this case water shortage conditions generally correspond with FYs where available supplies and stored water are inadequate to fulfill demands or are below a defined percentage of demands below what certain Shortage Actions may reasonably achieve, thereby requiring more-advanced Shortage Actions (as defined in the WSCP). As such, the constant monitoring and assessment of both District water supplies and demands over multiple FYs is critical towards assessing water supply reliability and defining potential water shortage conditions.

2 Decision-Making Process

This section describes the functional steps to formally approve the annual WSDA analysis and determination of water supply reliability. WSDAs will likely be developed by the District's Water Resources Program Manager for review and submission (see CCWD Organizational Chart in **Figure 3-1** of the UWMP). WSDA contents will follow the format and procedures outlined in this document.

2.1 Board Review

The annual WSDAs are standalone documents which shall be reviewed by the Board and approved by the District's General Manager (GM) prior to submission to DWR. Given the July 1 deadline for submission, the District anticipates Board review will occur during a Regular Board Meeting in the preceding month of May. WSDA meeting contents and notices will be provided to the public in compliance with the Brown Act contained in §54950 et seq. of the California Government Code. The Board need not formally adopt a WSDA but shall provide direction regarding Shortage Stage recommendations and GM approval of a WSDA.

Notice(s) of water shortage conditions may be recommended to the Board based on review of WSDA contents. Approval of a WSDA with such recommendations does not automatically trigger any WSDA-recommended Shortage Actions. The Board holds the authority to implement any Shortage Actions for CCWD's service areas, as outlined in the WSCP, and must adopt those actions separate of WSDA review and approval procedures.

2.2 WSDA Submission

Following GM approval, the WSDA will be submitted to DWR by July 1 or as specified in an amended Water Code. As of this time there are no submission instructions or standardized submission forms/tables. An example WSDA submission form which includes the concepts

outlined in this document is provided in **Appendix A**. CCWD plans to adhere with all WSDA submission guidelines and may amend its WSDA contents over time to adhere with changing or clarified guidelines, as required. Such changes will be noted in the following WSDA submission.

3 System and Supplies Overview

Chapter 3 of the UWMP details the District's currently six hydrologically disconnected water service areas, including:

1) *Jenny Lind Service Area* (Jenny Lind): obtains water supplies from the Calaveras River Watershed via New Hogan Reservoir (New Hogan) via contractual agreement with the U.S. Bureau of Reclamation (Reclamation) and Stockton East Water District (SEWD). Raw water supply intake for this system occurs only at the Jenny Lind Water Treatment Plant, used in parts of Valley Springs and surrounding communities for municipal purposes. The local La Contenta Golf Course (La Contena) also diverts some raw water from New Hogan for its landscape irrigation, under contract with CCWD, but mostly relies on recycled water supplies made available from the District's La Contenta Wastewater Treatment Plant. This service area is part of Sub-Region A (Calaveras River Watershed supplied) in UWMP analyses.

2) *Sheep Ranch Service Area* (Sheep Ranch): obtains water supplies from diversion on San Antonio Creek, a tributary of the Calaveras River, via District water rights to the upstream Big Trees Creek flowing through CCWD's White Pines Lake (White Pines). Raw water supply intake for this system occurs at the Sheep Ranch Water Treatment Plant, for relatively small municipal uses (mostly residential customers). Some raw water is also diverted under the District's rights for the local Right of Passage youth facility. This service area is part of Sub-Region A (Calaveras River Watershed supplied) in UWMP analyses.

3) *Ebbetts Pass Service Area* (Ebbetts Pass): obtains water supplies from diversion off the Collierville Tunnel (via so-called "Tunnel Tap"), a diversion from the North Fork Stanislaus River at McKays Point Reservoir (McKays), generally used to support hydropower operations on the North Fork Stanislaus Hydroelectric Project (North Fork Project, FERC Project No. 2409). These water supplies originate from several District diversion and storage water rights, and complex water supply agreements (detailed in **Chapter 6** of the UWMP), centered around CCWD's New Spicer Meadow Reservoir (New Spicer) upstream. Tunnel Tap raw water intakes supply the Hunters Water Treatment Plant, for municipal uses in the Arnold and Dorrington/Camp Connell areas, and for two wholesale treated water agreements with homeowner's association communities in the area. This service area is part of Sub-Region B (Stanislaus River Watershed supplied) in UWMP analyses.

4) *Copper Cove/Copperopolis Service Areas* (Copper Cove/Copperopolis): the result of the consolidation of two former service areas, this area obtains water supplies from the District's Stanislaus River and tributary water rights and New Spicer storage diverted at Lake Tulloch (Tulloch) downstream of Reclamation's New Melones Reservoir (New Melones). Raw water supply intake for this system occurs only at the Copper Cove Water Treatment Plant, used in parts of Copperopolis and the surrounding Tulloch area for

municipal purposes. The Saddle Creek Golf Course (Saddle Creek) also diverts some raw water from Tulloch for its landscape irrigation, under contract with CCWD, but mostly relies on recycled water supplies made available from the District's Copper Cove Wastewater Treatment Plant. This service area is part of Sub-Region B (Stanislaus River Watershed supplied) in UWMP analyses.

5) *West Point Service Area* (West Point): obtains water supplies from diversion on Bear Creek, a tributary of the Mokelumne River, via District water rights to use and store supplies in the Bummerville Regulating Reservoir (Bummerville Reservoir). CCWD also maintains a water purchase agreement with the Calaveras Public Utilities District (CPUD) for supplemental raw water supplies from Schaads Reservoir on the Middle Fork Mokelumne River via pumping plant intake. Raw water supplies from either Bear Creek or CPUD, which may both be routed through the Bummerville Reservoir, enter the system at the West Point Water Treatment Plant for local municipal uses. This service area is part of Sub-Region C (Mokelumne River Watershed supplied) in UWMP analyses.

6) *Wallace Service Area* (Wallace): the only District service area reliant on groundwater supplies – the sole source of water for Wallace. This area overlies the 'critically over-drafted' Eastern San Joaquin Groundwater Subbasin (Subbasin) leading to several groundwater management changes and new regulations under the Sustainable Groundwater Management Act (SGMA). Groundwater supply intake for this system occurs only at the Wallace Water Treatment Plant, used relatively small municipal uses (mostly residential customers) in this northwestern part of the County. This service area is part of Sub-Region D (groundwater supplied via Subbasin) in UWMP analyses.

There are several common features among these service areas:

- Each service area has a sole raw water inflow (from one or more intake sources) to the area's water treatment plant (WTP), used to supply that area's customer demands and wholesale customers, if applicable.
- Service area supplies are well defined (albeit complex) under existing CCWD permitted water rights, maintained diversion and use claims, and/or contractual agreements. For Wallace, groundwater consumption volumes and local monitoring wells are regularly tracked per the requirements of SGMA for the Subbasin.
- No service area has return flows to original raw water sources owing to a combination of private septic tank systems and District wastewater treatment facilities with effluent applied to spray and leach fields per applicable Waste Discharge Requirements.
- All CCWD customer end-use is metered (volumetric use) and manually read by qualified CCWD staff roughly every 60 days in accordance with the District's bimonthly billing schedule (see **Section 9.1.2** of the UWMP). Additionally, the District requires that all new connections be metered. Note that the District is also in the process of implementing an advanced, fixed network, Advanced Metering Infrastructure (AMI) system to replace all

existing customer meters, which will allow the District to monitor real-time water usage; anticipated for completion by end of 2022.

These features mean that each District service area is in effect a “closed system” consisting of a single WTP *input* and aggregated customer usage *output*. **Figure 2** illustrates this concept using the following defined terms, consistent with American Water Works Association (AWWA) terminology.

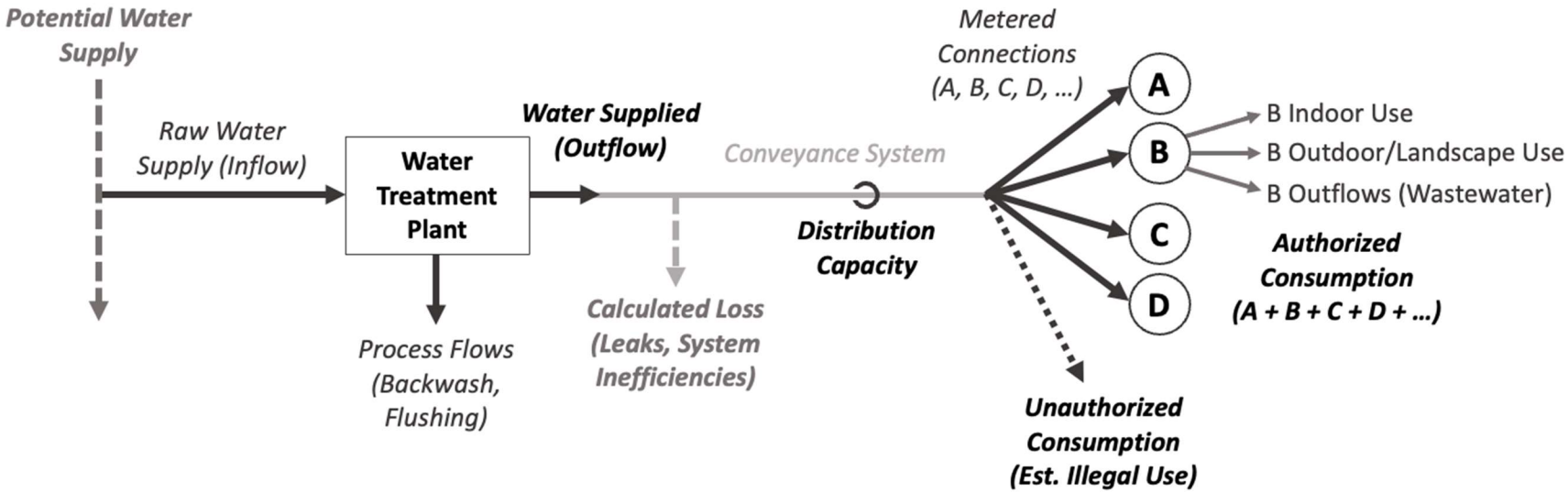


Figure 2. Water System Generalized Schematic

- *Water Supplied*: Total water made available for customer demands from the WTP (outflow), resulting from raw water intake minus process flows exiting the WTP during treatment (e.g., backwash and flushing procedures). Available raw water supplies will dictate the amount of treated water made available to customers by the WTP.
- *Authorized Consumption:* Total customer metered and known un-metered consumption in the District's service areas. This includes estimates of any operational flows, such as mid-system flushing, and un-metered municipal uses (e.g., firefighting and training, street cleaning, water use in municipal gardens and fountains).
- *Unauthorized Consumption:* Consumption in the District's service areas attributed to water illegally withdrawn from fire hydrants, illegal connections, bypass to customer consumption meters, and/or tampering with metering or meter reading equipment. Generally assumed as a fixed percentage of Water Supplied.
- *Calculated Loss*: Difference between Water Supplied and Authorized Consumption indicating the potential infrastructure system leaks and inefficiencies (i.e., amount of water lost during conveyance of treated water to customers).
- *Distribution Capacity:* The effective maximum amount of water supplies a service area conveyance system is capable of making available for customer demands (e.g., infrastructure limitations and capital projects which could limit treated water supply).

For WSDA purposes, each service area is assessed separately since each is dependent on a different water supply source. This is consistent with similar FY analyses performed by the District to comply with state 'Water Loss Audit' annual requirements (per SB 555, see **Section 9.1.5** of UWMP). The WSDA will combine current FY tracked Water Supplied, Authorized Consumption, and Calculated Loss data, will make appropriate adjustments to account for remaining and next FY projected values, and may also provide appropriate climate and hydrologic data used to recommend appropriate Shortage Actions. The notification and extent of how Shortage Actions are applied, and the Districts enforcement protocols, are defined in the WSCP.

3.1 Climate/Hydrologic Data

Section 3.3 of the UWMP provides an overview of County climate and watershed conditions, including a review of potential climate change impacts. Providing details of hydrologic conditions and climate change progression in CCWD's service areas is beyond the scope of the WSDAs. However, the District does track 'water year' (defined as October 1 through following September 30 generally coinciding with start of California's expected precipitation season) local precipitation and reservoir storage data in its 'Calaveras County Public Water Resources Data Packet' (Data Packet), a public informational tool updated daily using data collection software to compile information from the California Data Exchange Center (CDEC). Where practicable, CCWD may incorporate Data Packet and statewide CDEC information into its WSDAs to assist with the review of potential water supply conditions and recommended Shortage Actions. Other informative sources of current water resources conditions include:

- U.S. Drought Monitor, a regularly updated map of current drought conditions and historic data (available specific to California). Produced via partnership between the National Drought Mitigation Center, University of Nebraska-Lincoln, U.S. Department of Agriculture, and National Oceanic and Atmospheric Administration. The Drought Monitor is available at: https://droughtmonitor.unl.edu.
- U.S. Geologic Survey (USGS) Current Water Data for California, a regularly updated map of California streamflow data compared with historic flows, based on statistical percentile analysis. The USGS data are available at: https://waterdata.usgs.gov/ca/nwis/rt.

4 Water Supply Projection

This section describes the water supply data inputs and methodology used to develop the District's WSDAs. This corresponds with the *Water Supplied* term defined above.

4.1 Data Inputs

To calculate the Water Supplied by the WTP to a particular service area, the following data are required, as shown in **Figure 3**:

1. Pertinent river flow data and/or reservoir storage data for service area, if made available to CCWD, as follows:
    - New Hogan reservoir storage data for Jenny Lind (CDEC Sta. NHG, Sensor 15, Data Available: 10/1/1963 to present).
    - Big Trees Creek flow data for Sheep Ranch, obtained regularly from Western Hydrologics on behalf of monitoring organization.
    - New Spicer reservoir storage data (CDEC Sta. SPM, Sensor 15, Data Available: 5/31/1992 to present) and New Melones reservoir inflow data[1] (CDEC Sta. NML, Sensor 76, Data Available: 1/1/1994 to present) for Ebbetts Pass and Copper Cove/Copperopolis.
    - Bear Creek Diversion flow data for West Point, obtained from CCWD-owned Picovale gaging station (15-min increment data collection).
2. WTP raw water intake from appropriate source(s).
3. WTP process flows necessary for the treatment of raw water supplies, as outflows from the WTP (e.g., backwash and flushing procedures).
4. WTP produced (treated) water made available for distribution and customer demands.

[1] Sometimes used as proxy for Stanislaus River flow data through Collierville Tunnel/North Fork Project made available to downstream Copper Cove/Copperopolis.

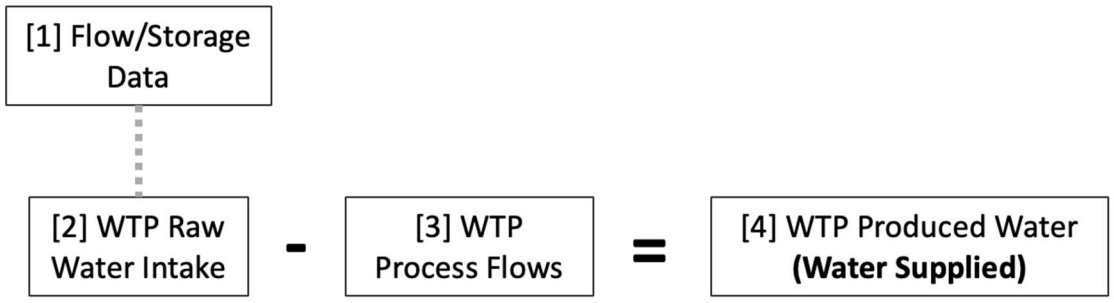


Figure 3. Water Supply Data Inputs

River flow and reservoir storage data are generally publicly available from CDEC or CCWD web resources, or are accessible by request of the monitoring agency. The frequency of data collection from these sources varies by sensor and given any infrastructure issues or constraints; the District is generally interested in monthly volumetric data used to review water supply availability (e.g., New Spicer changes in month-to-month storage can be indicative of water intake from the Tunnel Tap at Ebbetts Pass). The District will continue to use these data to help guide WSDA development, but that remains subject to change with changes to data availability.

Remaining WTP intake and production data are collected daily by District operations staff per WTP Drinking Water Regulations, required by both the U.S. Environmental Protection Agency (EPA) and State Water Resources Control Board (SWRCB). These data are readily available to District staff starting from calendar year 2008 and are available prior with additional data review and manual verification. CCWD intends to match these data with corresponding water year type and the water supply projections defined in **Chapter 7** of the UWMP.

4.2 Methodology

To assess water supply availability, CCWD will review monthly WTP intake data from preceding FYs with applicable water resources and hydrologic conditions to select an appropriate historically representative FY. The following months' WTP intake data from that representative FY will be used in conjunction with UWMP water supply projections to ensure the representative intake values could be supported by projected supplies – in most cases, the District has plentiful water supplies well above its demands. To the extent feasible, projections will be reviewed in the context of reservoir and river flow data given District water rights and contractual arrangements as verification. These data will be aggregated by month and total FY water supply volumes.

If water supplies are adequate for representative intakes, those intake values will be utilized in the WSDA analysis. If not, they will be reduced as deemed appropriate. Average (2008 to present) monthly volumes of process flows will be subtracted from raw water intake volumes to estimate WTP produced (treated) water made available. The WSDAs will provide a tabular view of current and projected remaining and next FY Water Supplied data (by FY month and year).

5 Water Use Analysis

This section describes the unconstrained demand (water use) data inputs and methodology used to develop the District's WSDAs. This corresponds with the *Authorized and Unauthorized Consumption* terms defined above.

5.1 Data Inputs

To calculate the *Authorized Consumption* for a particular service area, the following data are required:

1. Data from individual customer consumption meters; customer-level data are aggregated into service area-level consumption data.

These data are manually read bi-monthly by District operations staff consistent with the District's monitoring and billing procedures (will be automatic real-time readings with District conversion to AMI system by end of 2022). These data are readily available to District staff, but generally require review and manual verification. CCWD intends to match these data with corresponding water year type and the water demand projections defined in **Chapter 7** of the UWMP.

5.2 Current Year

Some current FY monthly data will likely be available as CCWD is developing its WSDA for the submission deadline (FY data available starting from preceding July). Remaining current FY monthly demands will be estimated from the greater of demand volumes calculated using the following methods:

- *Method A:* Average demand volumes of subsequent months based on historic consumption data.
- *Method B:* Demand volumes for subsequent months from a representative FY with closest preceding demand pattern (based on lowest average volume difference between actual preceding months and corresponding representative FY months), with percent factor applied to calibrate representative FY to match current FY pattern, applied to subsequent representative FY months.

These methods may be revised, or new methods may be added by the District to account for weather, growth, or other influencing factors to more accurately project FY demands, as needed. Such changes will be noted in the following WSDA submission.

5.3 Subsequent Dry Year

Section 7.3 of the UWMP provides a service area demand breakdown by hydrologic year type, exploring the changes to District demands with various sequencing of dry year conditions (i.e., single dry year versus up to five sequential dry years). Current FY data will be used to determine the appropriate selection of a subsequent dry year for WSDA purposes. For instance, if current FY is dry then subsequent dry year would actually correspond with second sequential dry year

data. To incorporate appropriate service area demand trends, monthly demand volumes will be averaged with the prior two years' corresponding month demand data for each service area, as shown in **Figure 4** below.

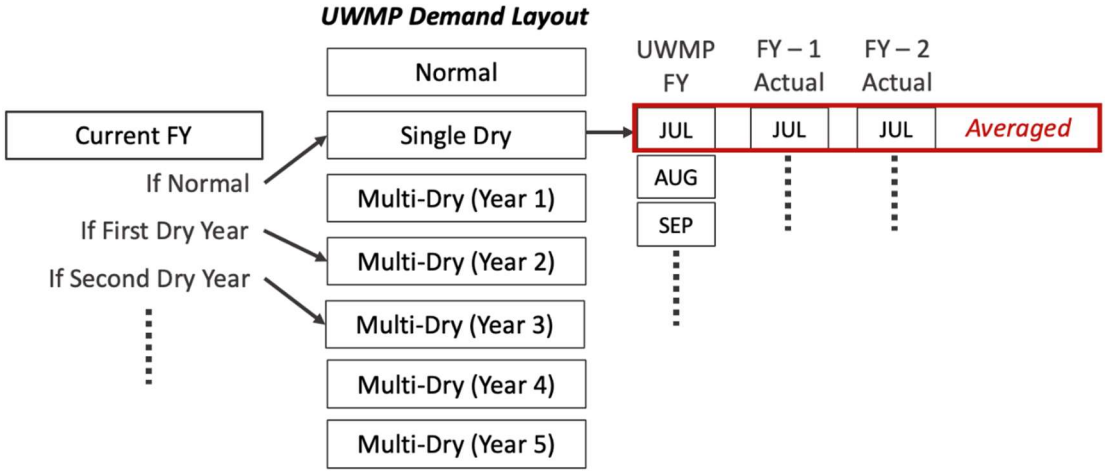


Figure 4. Subsequent Dry Year Data Analysis

This method of assessing a subsequent dry year may be revised by the District to more accurately project FY demands, as needed. Such changes will be noted in the following WSDA submission.

5.4 Methodology

The methods for assessing remaining FY and following FY service areas' *Authorized Consumption* are provided above. The WSDA will clearly state which of the current FY methods (A or B) were selected and shall define the appropriate subsequent FY conditions contemplated, providing monthly and FY total data. WSDA submissions may not contain the background data used to make selections, but CCWD shall make this data available upon request.

Unauthorized Consumption figures are generally more difficult to approximate accurately. District operations staff generally monitors system infrastructure to catch common illegal diversions as part of their manual customer meter reads (e.g., looks for illegal meter bypasses or fire hydrant uses). However, given the nature of CCWD's remote water supply sources and rural communities is it likely that there may be unauthorized water diversions and uses currently unknown by the District. **Chapter 3** of the UWMP defines some of the procedures and regulations the District relies on to prohibit and punish illegal diverters. For the purposes of the WSDA, the District assumes an AWWA standard of 0.25 percent of *Water Supplied* as a potential volume of illegal use. If information becomes available, the District may revise this percentage to more accurately account for service area *Unauthorized Consumption* as noted in the WSDAs.

Individual customer consumptive data shall remain private and will be provided only with request and approval by the customer in question or given appropriate legal orders. The WSDAs will represent aggregated consumption totals for each service area which are not representative of the water consumption of any individual customers.

6 Infrastructure Considerations

This section describes the infrastructure conditions data inputs and methodology used to develop the District's WSDAs. This corresponds with the *Calculated Loss* and *Distribution Capacity* terms defined above. Conveyance systems losses represent the most potential for adversely impacting the District's immediate ability to meet service area demands with available supplies (i.e., more difficult to meet demands during water shortage if extra water supplies are needed to deal with high conveyance losses to end-users). However, existing infrastructure capabilities and plausible constraints are also monitored in the WSDA to the extent these considerations influence CCWD's ability to deliver water supplies to customers.

6.1 Data Inputs

Calculated Loss is an estimated value based on *Water Supplied, Authorized Consumption,* and *Unauthorized Consumption* data, as shown in **Figure 5**. This is consistent with the approximation of system losses made in CCWD's annual Water Loss Audits. Where documented by CCWD operations staff during the current FY, conveyance infrastructure improvements, operational flows, or known non-metered consumption will be noted with the WSDA *Calculated Loss* estimate.

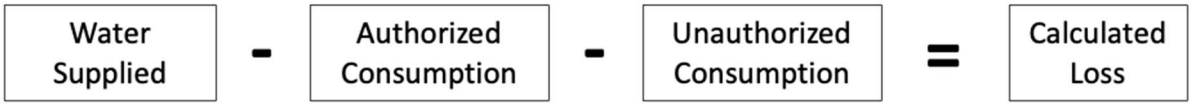


Figure 5. Calculated Loss Formulation

6.2 Methodology

Without improvements made to District water conveyance infrastructure, water system losses are anticipated to remain fairly stable or worsen slightly in the short term (current and next FY). Given monthly breakdowns of *Water Supplied* and *Authorized Consumption* during preceding FY months, the maximum of *Calculated Losses* from those months will be applied to the remaining FY months and subsequent FY. For the purposes of the WSDA, service area *Calculated Losses* will be added to projected *Authorized Consumption* data when comparing to available water supplies. The District recognizes from the Water Loss Audits that its service area system losses are generally fairly high, around 20 to 30 percent of treated water supplied for FY 2020 analysis. CCWD will re-evaluate average and trending system water losses once the conversion to AMI customer meters is completed, which should provide for more accurate estimations.

Since the District's service areas are closed systems, the WSDAs will approximate *Distribution Capacity* as the maximum volume of treated water production (*Water Supplied*) during any given month from the actual current FY data. For reference, and to review data trends, corresponding data from the prior FY and the long-term FY maximum will also be displayed. This assumes the District's WTPs are generally operated to the maximum extent possible to meet service area demands. Monthly data are provided to account for seasonal water supply and demand patterns,

and because annual aggregated trends could be more influenced by changes customer water use efficiency – though this can be reviewed from *Authorized Consumption* data trends. This approximation provides a quantitative evaluation of existing infrastructure capabilities which affect the District's ability to deliver supplies to meet demands, which will be used to verify water supply projections in the WSDAs. The WSDAs will also include a qualitative description of plausible constraints, and list of anticipated capital projects which could influence system capabilities (e.g., planned treatment plant upgrades) or new projects that may add capacity (e.g., a new groundwater well or system intertie) over the following FY.

7 Amendments and Revisions

The California Government Code and Water Code requires certain notices, public hearings, and outreach steps be made related to adoption of a District UWMP or WSCP update. Given this WSDA procedures document has been developed in parallel with the WSCP and UWMP, the initial adoption, submittal, and implementation procedures will follow along with those planning efforts. Should CCWD need to amend or revise the WSDA methods outlined in this document, to more accurately reflect future data availability or conditions, or to better adhere with DWR submission requirements, the District does not anticipate needing to re-initiate those procedures to amend this document.

Any amendments to this document, beyond simple administrative revisions or updates to the CCWD contact information below, shall be brought to the Board for review and approval. Such amendments will be provided to the public in compliance with the Brown Act contained in §54950 et seq. of the California Government Code. The amendments shall also be noted in the following WSDA submission.

7.1 CCWD Contact Information

For more information on the WSDA procedures outlined in this document, or regarding development of the annual WSDA submissions, please use the following CCWD contact information:

Name	Brad J. Arnold, PE
Title	Water Resources Program Manager
Address	Calaveras County Water District
	120 Toma Court, San Andreas, CA 95249
Phone	(209) 754-3094
E-mail	brada@ccwd.org

[APPENDIX NOT INCLUDED IN ATTACHMENT]

ATTACHMENT B
PROPOSED WSCP SHORTAGE STAGES

NOTE: The following table reflects the proposed CCWD water shortage stages from the draft 2020 Water Shortage Contingency Plan (WSCP), currently under review. These shortage stages, water supply reduction triggers, and demand reduction actions have not yet been formally adopted by CCWD. For a copy of the draft WSCP, visit CCWD's website at: https://ccwd.org/water-resources/

Stage	Precent Supply Reduction	Demand Reduction Actions[1]
1: Advisory Condition (Stage 1 Restrictions)	Up to 10%	None required by CCWD, may include increase conservation outreach and water use efficiency incentives.
2: Alert Condition (Stage 2 Restrictions)	Up to 20%	None required by CCWD, may include active broadcasting of conservation measures or time-defined prohibitions on certain water uses (e.g., excess use).
3: Moderate Condition (Stage 3 Restrictions)	Up to 30%	CCWD-required decrease of 20% from normal year demand levels, which may involve water conservation notices or other timing/use restrictions.
4: Significant Condition (Stage 4 Restrictions)	Up to 40%	CCWD-required decrease of 30% from normal year demand levels, including Board-defined actions and more aggressive water use restrictions.
5: Critical Condition (Stage 5 Restrictions)	Up to 50%	CCWD-required decrease of 40% from normal year demand levels, including any Board-defined actions and CCWD staff-verified water use restrictions.
6: Emergency Condition (Stage 6 Restrictions)	More than 50%	CCWD-required decrease of at least 40% from normal year demand levels. This is the most critical condition and would involve outreach with emergency services and suspension of certain water uses.

[1] Barring any state and/or County conservation mandate(s), which may dictate which Stage is enacted and the appropriate response actions.

ATTACHMENT C
DRAFT SERVICE AREA WSDAs

NOTE: The following table and draft Water Supply & Demand Assessments (WSDAs) for CCWD's service areas reflect an example of the methodology and procedures proposed in the draft 2020 Water Shortage Contingency Plan (WSCP), as provided in Attachment A, applied to 2021 current conditions. As such, the following disclaimers are provided:

- The WSDAs are assessed on a CCWD Fiscal Year (FY) basis (July 1 through June 30), consistent with the analysis performed in the 2020 UWMP Update and WSCP.
- Per the California Water Code, the WSDAs must assume a subsequent dry year used to illustrate potential conditions if drought or other dry conditions persist. The attached WSDAs illustrate the potential water supply conditions in CCWD's service areas during the remaining months of FY 2021 and FY 2022 - starting July 1, 2021 - if it is assumed that dry conditions continue (i.e., a dry Winter 2021-2022).
- The WSDAs only provide a recommendation of potential shortage stages based on these assumptions. CCWD will ultimately determine the appropriate shortage stages and when to enact based on available supplies and hydrologic conditions. However, the WSCP contemplates shortage stages and actions (Attachment B).
- Starting in 2022, the Water Code will require CCWD to submit to the California Department of Water Resources (DWR) the WSDAs on an annual basis. The WSDAs are not due to DWR in 2021 and the WSDA Procedures have not yet been adopted by the CCWD Board of Directors (Board). As such, these draft WSDAs will not be submitted to DWR and the recommendations are non-binding.

Service Area	Potential % Supply Shortage[1]	Proposed Shortage Stage per WSCP[2]	Note(s)
Copper Cove/Copperopolis	7.6%	Stage 1	Owing to system losses and estimated unauthorized consumption.
Ebbetts Pass	4.7%	Stage 1	Potential New Spicer Meadow supply operational constraints.
Jenny Lind	1.0%	Stage 1	Minimal water supply issues: mitigated with system stored water.
Sheep Ranch	9.1%	Stage 1	Intake limitations, monitoring of Big Trees Creek flows needed.
Wallace	18.4%	Stage 2	Owing to peaking consumption during certain months straining intake volumes.
West Point	7.2%	Stage 1	Owing to system losses and estimated unauthorized consumption.

[1] Potential shortage reflects conditions during remaining months of current FY and assumed dry next FY (see WSDA Procedures document).

[2] Proposed water supply Shortage Stages per 2020 CCWD WSCP; note these Shortage Stage triggers and recommended actions have not been formally adopted by CCWD.

Calaveras County Water District (CCWD)
Water Supply and Demand Assessment (WSDA)

Fiscal Year (FY)	2021-2022	Actual Data Thru (Month)	APR
Service Area	Copper Cove/Copperopolis	PWSID	CA0510017
Prepared By	Brad Arnold	Prepared Date	5/21/21

Part 1: Climate and Hydrology

Print and attach the latest CCWD Public Water Resoruces Data Packet (Data Packet) to this WSDA submission, verify the following pages are included:

- Page 2, Precipitation Data: Sub-Region Indices
- Page 3, Precipitation Data: Sub-Region Historic/Potential Data
- Page 4, Reservoir Storage Data
- Page 6, Latest U.S. Drought Monitor Map for California w/Calaveras County Highlighted

Provide a general description of Calaveras County climate and hydrologic conditions below, considering from the start of current water year (preceding October 1st) to the current date. If Data Packet is unavailable, please note and provide other reference information.

Water year conditions for 2020-2021 well below average; latest Data Packet indicates 51.3% of average accumulated precipitation to date for Lower Hwy 4 (Copperopolis) area. Copper Cove/Copperopolis Service Area generally dry like most of Highway 4 Corridor in County. Conditions statewide similarly very dry, as seen in latest US Drought Monitor analyses - most of California either in 'Extreme Drought' or 'Exceptional Drought' conditions. On 5/12/2021, California Governor declared drought emergency for 39 counties, including Calaveras County. CCWD anticipates challenging water supply conditions, possible water rights curtailments, and other mandatory drought-related measures throughout remainder of 2021.

Current Average Accumulated Precipitation to Date for Applicable Sub-Region *(see Data Packet Indices)*: 51.3 % of Avg.

Precipitation Historical/Potential Data EOY 9/30 for Applicable Sub-Region *(see Data Packet Historical/Potential Data)*

- ○ Above Typical Range
- ○ Within Typical Range (Top-Half)
- ● Within Typical Range (Bottom-Half)
- ○ Below Typical Range

Current Calaveras County Drought Intensity Status *(see Drought Monitor)*

- ○ None
- ○ D0 Abnormally Dry
- ○ D1 Moderate Drought
- ○ D2 Severe Drought
- ● D3 Extreme Drought
- ○ D4 Exceptional Drought

Potential Hydrologic Conditions *(Approximate, Subject to Change)*: **Dry/Very Dry Conditions**

Select Appropriate Statement if Trending Dry or Dry Conditions:

- ○ Not Trending Dry or Dry Conditions
- ○ Single Dry Year (Past FY Not Dry)
- ● Multi-Dry Year (Second, Prior FY Dry)
- ○ Multi-Dry Year (Third, Prior Two FYs Dry)
- ○ Multi-Year Drought, Number Year:

Part 2: Water Supply Projections

Fill out water supply projection tables and provide info below (instructions provided in WSDA Procedures Document).

Source River/Reservoir Name	New Spicer Meadow Reservoir
Data Source and Type	CDEC SPM Sens 15 (Reservoir Storage)

	Month	Available Source (acre-ft)	Actual WTP Intake (acre-ft)	Actual WTP Supplied (acre-ft)	Representative FY Supplied[1] (acre-ft)	UWMP Year Type Supply[2] (acre-ft)	Water Supplied (acre-ft)
Current FY	Jul	125,401	201	187	189	182	201
	Aug	106,694	205	192	202	195	205
	Sep	93,712	178	167	177	171	178
	Oct	82,502	159	148	132	127	159
	Nov	76,678	114	107	78	75	114
	Dec	71,014	87	81	56	54	87
	Jan	66,775	74	69	57	55	74
	Feb	64,135	65	60	54	52	65
	Mar	65,331	80	75	84	81	80
	Apr	83,696	114	107	104	101	114
	May				151	145	158
	Jun				172	166	181
	Total FY		1,277	1,193	1,457	1,404	1,616
Following FY	Jul				124	193	170
	Aug				128	198	174
	Sep				119	172	156
	Oct				108	153	140
	Nov				70	110	96
	Dec				59	84	76
	Jan				51	72	66
	Feb				49	62	60
	Mar				54	77	70
	Apr				76	110	100
	May				103	145	133
	Jun				142	166	165
	Total FY				1,084	1,542	1,406

(1) Representative FY selected and any adjustments to monthly data set defined below.

(2) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Representative FY Selected	2013
% Adjustment to Rep FY Data	-5.1%

Provide any additional context or information related to the WSDA water supply analysis below.

(1) Total New Spicer Meadow Reservoir (SPM) storage shown, represents maximum theoretical availabe to service area. Note not all water will be used at service area per various agreements, water rights, etc. (2) Actual WTP intake data not readily available; estimated from WTP production data using 2020 average ratio; (3) Following FY Representative Year assumed FY 2016, during the prior critical drought period in Calaveras County following preceding dry years. This assumes success in CCWD water use efficiency and conservation efforts going forward and/or state conservation mandate(s) for continued drought emergency conditions.

Part 3: Water Use Analysis

Fill out water use projection tables and provide info below (instructions provided in WSDA Procedures Document).

Unauthorized Use Percentage 0.25 %

	Month	Actual Consumption (acre-ft)	UWMP Year Type Demand (acre-ft)	Operational and Non-Meter[1] (acre-ft)	Projected Consumption[2,3] (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)
Current FY	Jul	124	126	2.3	144	124	31
	Aug	142	150	2.8	152	142	35
	Sep	130	135	2.5	139	130	32
	Oct	118	120	2.2	126	118	29
	Nov	101	85	1.6	95	101	25
	Dec	85	52	1.0	65	85	21
	Jan		42	0.8	40	40	10
	Feb		39	0.7	81	81	20
	Mar		46	0.8	77	77	19
	Apr		53	1.0	74	74	18
	May		77	1.4	86	86	22
	Jun		101	1.9	98	98	25
	Total FY	699	1,026	19	1,180	1,156	289
Following FY	Jul		126	2.3	117	117	29
	Aug		150	2.8	139	139	35
	Sep		135	2.5	124	124	31
	Oct		120	2.2	109	109	27
	Nov		85	1.6	82	82	20
	Dec		52	1.0	55	55	14
	Jan		42	0.8	45	45	11
	Feb		39	0.7	37	37	9
	Mar		46	0.8	42	42	11
	Apr		53	1.0	48	48	12
	May		77	1.4	74	74	18
	Jun		101	1.9	100	100	25
	Total FY		1,026	19	971	971	243

(1) Operational flows or known non-metered consumption in service area.
(2) Current FY projection method defined below.
(3) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Current FY Data Projection Method Used *(see WSDA Procedures Document)*

- ○ Method A (Historic Consumption Data)
- ● Method B (Demand Pattern Match)
- ○ Other Method, as Defined Below:

Provide any additional context or information related to the WSDA water use analysis below.

(1) Unauthorized use percentage consistent with American Water Work Association (AWWA) methodology; (2) Method B for 2014 representative FY match used (0.2% avg. diff), used for months JAN through JUN of current FY; (3) No change in FY demand projected for second dry year in sequence, per UWMP (see Section 7.3); (4) Operational and Non-Meter based on ratio of "Unbilled Un-Metered" to "Billed Metered" statistics from latest AWWA Water Loss Audits.

Part 4: Infrastructure Considerations

Fill out infrastructre and system loss tables and provide info below (instructions provided in WSDA Procedures Document).

	Month	Calculated Loss (acre-ft)	Maximum FY Dist. Capacity (acre-ft)	Prior FY Dist. Capacity (acre-ft)	Current Dist. Capacity[1] (acre-ft)
Current FY	Jul	45	211	190	187
	Aug	28	213	188	192
	Sep	16	187	155	167
	Oct	11	139	126	148
	Nov	21	102	102	107
	Dec	16	66	61	81
	Jan	24	70	53	69
	Feb	12	60	60	60
	Mar	15	88	72	75
	Apr	22	115	84	107
	May	51	159	134	
	Jun	58	182	161	
	Total FY	319	1,590	1,385	1,193
Following FY	Jul	24			
	Aug	32			
	Sep	29			
	Oct	3			
	Nov	18			
	Dec	8			
	Jan	10			
	Feb	13			
	Mar	17			
	Apr	40			
	May	41			
	Jun	40			
	Total FY	276			

(1) Based on actual treated water production volumes for current FY.

Maximum Est. Capacity 213 (acre-ft/month)

Provide any information on infrastructure improvements or alterations made during current and preceding FY for the service area. Provide any additional context or information related to the WSDA system losses and plausible system constrains below.

Information not provided for this initial WSDA trial submission.

Please list anticipated capital projects in the following FY which could influence future system capabilities. This should be limited to CCWD Board of Directors-approved projects or those incuded in the District's Capital Improvement Program (CIP).

Information not provided for this initial WSDA trial submission.

Part 5: Data Compilation

	Month	Water Supplied (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)	Calculated Losses (acre-ft)	Difference (acre-ft)	Highlight[1]
Current FY	Jul	201	124	31	45	0	
	Aug	205	142	35	28	0	
	Sep	178	130	32	16	0	
	Oct	159	118	29	11	0	
	Nov	114	101	25	21	-33	X
	Dec	87	85	21	16	-35	X
	Jan	74	40	10	24	0	
	Feb	65	81	20	12	-48	X
	Mar	80	77	19	15	-31	X
	Apr	114	74	18	22	0	
	May	158	86	22	51	0	
	Jun	181	98	25	58	0	
	Total FY	1,616	1,156	289	319	-148	X
Following FY	Jul	170	117	29	24	0	
	Aug	174	139	35	32	-32	X
	Sep	156	124	31	29	-29	X
	Oct	140	109	27	3	0	
	Nov	96	82	20	18	-23	X
	Dec	76	55	14	8	0	
	Jan	66	45	11	10	0	
	Feb	60	37	9	13	0	
	Mar	70	42	11	17	0	
	Apr	100	48	12	40	0	
	May	133	74	18	41	0	
	Jun	165	100	25	40	0	
	Total FY	1,406	971	243	276	-84	X

(1) Highlighted with "X" for months/FY with negative supply-demand difference.

Based on the above table, provide a description of the current FY and following FY water supply and demand conditions. If there final column contains highlighted rows, describe general CCWD response to deal with periods of inadequate water supply or clarify if WSDA analysis is erroneous.

CCWD remains generally in good water supply condition given access to available New Spicer Meadow Reservoir supplies. However, based on historic and projected data there may be a Stage 1 water shortage owing to historic dry year conditions. This WSDA does not account for in-system water storage (e.g., treated water storage tanks), around 9 AF total in service area available, or decreased operational losses with increased water use efficiency measures.

Calculated Water Supply Shortage: 7.6% % of Avg.

Recommended Shortage Stage
(see Water Shortage Contingency Plan)

- ○ None
- ● Stage 1 (Up to 10% Shortage)
- ○ Stage 2 (Up to 20% Shortage)
- ○ Stage 3 (Up to 30% Shortage)
- ○ Stage 4 (Up to 40% Shortage)
- ○ Stage 5 (Up to 50% Shortage)
- ○ Stage 6 (More than 50% Shortage)

Each Shortage Stage contains several recommended Demand Reduction Actions (DRAs), as defined by CCWD's Water Shortage Contingency Plan. If a Shortage Stage was selected, describe the DRAs planned for current and following FY, as needed. Describe plans for introducting additional DRAs or increasing Shortage Stage intensity, if needed.

Additional water use efficiency and conservation outreach in-County, voluntary reduction measures, and other public information campaigns (e.g., Calaveras Conserves). CCWD will respond to any state-wide emergency drought declarations or required measures, as needed.

Part 6: Review/Approvals

Provide a description of any amendments or changes to the WSDA process or analysis since the last submission.

Initial WSDA trial submission provided during public review of CCWD 2020 Urban Water Management Plan (UWMP) Update effort. WSDA Procedures and proposed CCWD water shortage conditions, stages, and response actions provided in CCWD 2020 Water Shortage Contingency Plan (WSCP, part of UWMP Update package). Starting in 2022, CCWD will need to submit WSDA contents to the California Department of Water Resources (DWR), per California Water Code requirements. This FY 2021-2022 WSDA will not be submitted to DWR.

Reviewed by CCWD Board of Directors *(Regular Meeting Date)*		(Date)
WSDA Prepared By		(Signature)
	Brad Arnold	(Name)
	Water Resources Prog Mgr.	(Title)
	5/21/21	(Date)
	brada@ccwd.org	(E-mail Address)
	(209) 754-3094	(Phone Number)
Approved for Form and Sufficiency		(Signature)
	Michael Minkler	(Name)
	General Manager	(Title)
		(Date)

For Example Only

Calaveras County Water District (CCWD)
Water Supply and Demand Assessment (WSDA)

Fiscal Year (FY)	2021-2022	Actual Data Thru (Month)	APR
Service Area	Ebbetts Pass	PWSID	CA0510016
Prepared By	Brad Arnold	Prepared Date	5/21/21

Part 1: Climate and Hydrology

Print and attach the latest CCWD Public Water Resoruces Data Packet (Data Packet) to this WSDA submission, verify the following pages are included:

- Page 2, Precipitation Data: Sub-Region Indices
- Page 3, Precipitation Data: Sub-Region Historic/Potential Data
- Page 4, Reservoir Storage Data
- Page 6, Latest U.S. Drought Monitor Map for California w/Calaveras County Highlighted

Provide a general description of Calaveras County climate and hydrologic conditions below, considering from the start of current water year (preceding October 1st) to the current date. If Data Packet is unavailable, please note and provide other reference information.

Water year conditions for 2020-2021 well below average; latest Data Packet indicates 55.6% of average accumulated precipitation to date for Upper Hwy 4 (Ebbetts Pass) area. Ebbetts Pass Service Area very dry with snowpack well below expected accumulation. Conditions statewide similarly very dry, as seen in latest US Drought Monitor analyses - most of California either in 'Extreme Drought' or 'Exceptional Drought' conditions. On 5/12/2021, California Governor declared drought emergency for 39 counties, including Calaveras County. CCWD anticipates challenging water supply conditions, possible water rights curtailments, and other mandatory drought-related measures throughout remainder of 2021.

Current Average Accumulated Precipitation to Date for Applicable Sub-Region *(see Data Packet Indices)*: 55.6 % of Avg.

Precipitation Historical/Potential Data EOY 9/30 for Applicable Sub-Region *(see Data Packet Historical/Potential Data)*

- ○ Above Typical Range
- ○ Within Typical Range (Top-Half)
- ● Within Typical Range (Bottom-Half)
- ○ Below Typical Range

Current Calaveras County Drought Intensity Status *(see Drought Monitor)*

- ○ None
- ○ D0 Abnormally Dry
- ○ D1 Moderate Drought
- ○ D2 Severe Drought
- ● D3 Extreme Drought
- ○ D4 Exceptional Drought

Potential Hydrologic Conditions *(Approximate, Subject to Change)*: **Dry/Very Dry Conditions**

Select Appropriate Statement if Trending Dry or Dry Conditions:

- ○ Not Trending Dry or Dry Conditions
- ○ Single Dry Year (Past FY Not Dry)
- ● Multi-Dry Year (Second, Prior FY Dry)
- ○ Multi-Dry Year (Third, Prior Two FYs Dry)
- ○ Multi-Year Drought, Number Year:

Part 2: Water Supply Projections

Fill out water supply projection tables and provide info below (instructions provided in WSDA Procedures Document).

Source River/Reservoir Name	New Spicer Meadow Reservoir
Data Source and Type	CDEC SPM Sens 15 (Reservoir Storage)

	Month	Available Source (acre-ft)	Actual WTP Intake (acre-ft)	Actual WTP Supplied (acre-ft)	Representative FY Supplied[1] (acre-ft)	UWMP Year Type Supply[2] (acre-ft)	Water Supplied (acre-ft)
Current FY	Jul	125,401	178	165	196	189	178
	Aug	106,694	188	175	201	194	188
	Sep	93,712	166	155	161	156	166
	Oct	82,502	154	143	130	125	154
	Nov	76,678	105	98	95	91	105
	Dec	71,014	87	81	90	87	87
	Jan	66,775	83	77	93	89	83
	Feb	64,135	83	77	87	84	83
	Mar	65,331	79	74	110	106	79
	Apr	83,696	104	96	91	88	104
	May				101	97	106
	Jun				144	138	152
	Total FY		1,226	1,141	1,497	1,443	1,484
Following FY	Jul				182	176	192
	Aug				171	165	181
	Sep				145	139	153
	Oct				131	126	138
	Nov				99	96	105
	Dec				95	92	101
	Jan				93	89	98
	Feb				86	83	91
	Mar				96	92	101
	Apr				94	91	99
	May				110	106	116
	Jun				115	111	122
	Total FY				1,418	1,366	1,496

(1) Representative FY selected and any adjustments to monthly data set defined below.

(2) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Representative FY Selected	2018
% Adjustment to Rep FY Data	-0.8%

Provide any additional context or information related to the WSDA water supply analysis below.

(1) Total New Spicer Meadow Reservoir (SPM) storage shown, represents maximum theoretical availabe to service area. Note not all water will be used at service area per various agreements, water rights, etc. (2) Actual WTP supplied data not readily available; estimated from WTP intake data using 2020 average ratio; (3) Following FY Representative Year assumed FY 2015, during the prior critical drought period in Calaveras County following preceding dry years. This assumes success in CCWD water use efficiency and conservation efforts going forward and/or state conservation mandate(s) for continued drought emergency conditions.

Part 3: Water Use Analysis

Fill out water use projection tables and provide info below (instructions provided in WSDA Procedures Document).

Unauthorized Use Percentage 0.25 %

	Month	Actual Consumption (acre-ft)	UWMP Year Type Demand (acre-ft)	Operational and Non-Meter[1] (acre-ft)	Projected Consumption[2,3] (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)
Current FY	Jul	109	128	2.0	138	109	27
	Aug	114	128	2.0	155	114	28
	Sep	119	126	2.0	149	119	30
	Oct	97	98	1.6	131	97	24
	Nov	75	75	1.2	83	75	19
	Dec	41	75	1.2	44	41	10
	Jan		69	1.1	40	40	10
	Feb		40	0.6	55	55	14
	Mar		13	0.2	58	58	15
	Apr		65	1.0	67	67	17
	May		120	1.9	87	87	22
	Jun		125	2.0	108	108	27
	Total FY	555	1,061	17	1,116	970	243
Following FY	Jul		128	2.0	127	127	32
	Aug		128	2.0	126	126	31
	Sep		126	2.0	125	125	31
	Oct		98	1.6	97	97	24
	Nov		75	1.2	74	74	18
	Dec		75	1.2	70	70	17
	Jan		69	1.1	60	60	15
	Feb		40	0.6	42	42	11
	Mar		13	0.2	25	25	6
	Apr		65	1.0	66	66	16
	May		120	1.9	108	108	27
	Jun		125	2.0	115	115	29
	Total FY		1,061	17	1,033	1,033	258

(1) Operational flows or known non-metered consumption in service area.
(2) Current FY projection method defined below.
(3) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Current FY Data Projection Method Used *(see WSDA Procedures Document)*

- ● Method A (Historic Consumption Data)
- ○ Method B (Demand Pattern Match)
- ○ Other Method, as Defined Below:

Provide any additional context or information related to the WSDA water use analysis below.

(1) Unauthorized use percentage consistent with American Water Work Association (AWWA) methodology; (2) Method A for FY 2008 through FY 2020 average monthly quantities, used for months JAN through JUN of current FY; (3) No change in FY demand projected for second dry year in sequence, per UWMP (see Section 7.3); (4) Operational and Non-Meter based on ratio of "Unbilled Un-Metered" to "Billed Metered" statistics from latest AWWA Water Loss Audits.

Part 4: Infrastructure Considerations

Fill out infrastructre and system loss tables and provide info below (instructions provided in WSDA Procedures Document).

	Month	Calculated Loss (acre-ft)	Maximum FY Dist. Capacity (acre-ft)	Prior FY Dist. Capacity (acre-ft)	Current Dist. Capacity[1] (acre-ft)
Current FY	Jul	42	243	166	165
	Aug	46	238	164	175
	Sep	17	209	140	155
	Oct	32	167	110	143
	Nov	11	115	105	98
	Dec	36	133	106	81
	Jan	33	144	91	77
	Feb	14	117	78	77
	Mar	7	129	79	74
	Apr	20	126	85	96
	May	20	164	132	
	Jun	16	188	151	
	Total FY	293	1,975	1,407	1,141
Following FY	Jul	34			
	Aug	24			
	Sep	28			
	Oct	17			
	Nov	13			
	Dec	14			
	Jan	23			
	Feb	38			
	Mar	70			
	Apr	18			
	May	21			
	Jun	23			
	Total FY	322			

(1) Based on actual treated water production volumes for current FY.

Maximum Est. Capacity 243 (acre-ft/month)

Provide any information on infrastructure improvements or alterations made during current and preceding FY for the service area. Provide any additional context or information related to the WSDA system losses and plausible system constrains below.

Information not provided for this initial WSDA trial submission.

Please list anticipated capital projects in the following FY which could influence future system capabilities. This should be limited to CCWD Board of Directors-approved projects or those incuded in the District's Capital Improvement Program (CIP).

Information not provided for this initial WSDA trial submission.

Part 5: Data Compilation

	Month	Water Supplied (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)	Calculated Losses (acre-ft)	Difference (acre-ft)	Highlight[1]
Current FY	Jul	178	109	27	42	0	
	Aug	188	114	28	46	0	
	Sep	166	119	30	17	0	
	Oct	154	97	24	32	0	
	Nov	105	75	19	11	0	
	Dec	87	41	10	36	0	
	Jan	83	40	10	33	0	
	Feb	83	55	14	14	0	
	Mar	79	58	15	7	0	
	Apr	104	67	17	20	0	
	May	106	87	22	20	-22	X
	Jun	152	108	27	16	0	
	Total FY	1,484	970	243	293	-22	X
Following FY	Jul	192	127	32	34	0	
	Aug	181	126	31	24	0	
	Sep	153	125	31	28	-32	X
	Oct	138	97	24	17	0	
	Nov	105	74	18	13	0	
	Dec	101	70	17	14	0	
	Jan	98	60	15	23	0	
	Feb	91	42	11	38	0	
	Mar	101	25	6	70	0	
	Apr	99	66	16	18	0	
	May	116	108	27	21	-41	X
	Jun	122	115	29	23	-44	X
	Total FY	1,496	1,033	258	322	-117	X

(1) Highlighted with "X" for months/FY with negative supply-demand difference.

Based on the above table, provide a description of the current FY and following FY water supply and demand conditions. If there final column contains highlighted rows, describe general CCWD response to deal with periods of inadequate water supply or clarify if WSDA analysis is erroneous.

CCWD remains generally in good water supply condition given access to available New Spicer Meadow Reservoir supplies. However, based on historic and projected data there may be a Stage 1 water shortage owing to historic dry year conditions. This WSDA does not account for in-system water storage (e.g., treated water storage tanks), around 21.8 AF total in service area available, or decreased operational losses with increased water use efficiency measures.

Calculated Water Supply Shortage: 4.7% % of Avg.

Recommended Shortage Stage
(see Water Shortage Contingency Plan)

- ○ None
- ● Stage 1 (Up to 10% Shortage)
- ○ Stage 2 (Up to 20% Shortage)
- ○ Stage 3 (Up to 30% Shortage)
- ○ Stage 4 (Up to 40% Shortage)
- ○ Stage 5 (Up to 50% Shortage)
- ○ Stage 6 (More than 50% Shortage)

Each Shortage Stage contains several recommended Demand Reduction Actions (DRAs), as defined by CCWD's Water Shortage Contingency Plan. If a Shortage Stage was selected, describe the DRAs planned for current and following FY, as needed. Describe plans for introducting additional DRAs or increasing Shortage Stage intensity, if needed.

Additional water use efficiency and conservation outreach in-County, voluntary reduction measures, and other public information campaigns (e.g., Calaveras Conserves). CCWD will respond to any state-wide emergency drought declarations or required measures, as needed.

Part 6: Review/Approvals

Provide a description of any amendments or changes to the WSDA process or analysis since the last submission.

Initial WSDA trial submission provided during public review of CCWD 2020 Urban Water Management Plan (UWMP) Update effort. WSDA Procedures and proposed CCWD water shortage conditions, stages, and response actions provided in CCWD 2020 Water Shortage Contingency Plan (WSCP, part of UWMP Update package). Starting in 2022, CCWD will need to submit WSDA contents to the California Department of Water Resources (DWR), per California Water Code requirements. This FY 2021-2022 WSDA will not be submitted to DWR.

Reviewed by CCWD Board of Directors *(Regular Meeting Date)*		(Date)
WSDA Prepared By		(Signature)
	Brad Arnold	(Name)
	Water Resources Prog Mgr.	(Title)
	5/21/21	(Date)
	brada@ccwd.org	(E-mail Address)
	(209) 754-3094	(Phone Number)
Approved for Form and Sufficiency		(Signature)
	Michael Minkler	(Name)
	General Manager	(Title)
		(Date)

Calaveras County Water District (CCWD)
Water Supply and Demand Assessment (WSDA)

Fiscal Year (FY)	2021-2022	Actual Data Thru (Month)	APR
Service Area	Jenny Lind	PWSID	CA0510006
Prepared By	Brad Arnold	Prepared Date	5/21/21

Part 1: Climate and Hydrology

Print and attach the latest CCWD Public Water Resoruces Data Packet (Data Packet) to this WSDA submission, verify the following pages are included:

- Page 2, Precipitation Data: Sub-Region Indices
- Page 3, Precipitation Data: Sub-Region Historic/Potential Data
- Page 4, Reservoir Storage Data
- Page 6, Latest U.S. Drought Monitor Map for California w/Calaveras County Highlighted

Provide a general description of Calaveras County climate and hydrologic conditions below, considering from the start of current water year (preceding October 1st) to the current date. If Data Packet is unavailable, please note and provide other reference information.

Water year conditions for 2020-2021 well below average; latest Data Packet indicates 71.2% of average accumulated precipitation to date for Valley Springs/Jenny Lind area. Jenny Lind Service Area dry, but not as dry as other parts of the County. Conditions statewide similarly very dry, as seen in latest US Drought Monitor analyses - most of California either in 'Extreme Drought' or 'Exceptional Drought' conditions. On 5/12/2021, California Governor declared drought emergency for 39 counties, including Calaveras County. CCWD anticipates challenging water supply conditions, possible water rights curtailments, and other mandatory drought-related measures throughout remainder of 2021.

Current Average Accumulated Precipitation to Date for Applicable Sub-Region *(see Data Packet Indices)*: 71.2 % of Avg.

Precipitation Historical/Potential Data EOY 9/30 for Applicable Sub-Region *(see Data Packet Historical/Potential Data)*

- ○ Above Typical Range
- ○ Within Typical Range (Top-Half)
- ● Within Typical Range (Bottom-Half)
- ○ Below Typical Range

Current Calaveras County Drought Intensity Status *(see Drought Monitor)*

- ○ None
- ○ D0 Abnormally Dry
- ○ D1 Moderate Drought
- ○ D2 Severe Drought
- ● D3 Extreme Drought
- ○ D4 Exceptional Drought

Potential Hydrologic Conditions *(Approximate, Subject to Change)*: **Dry/Very Dry Conditions**

Select Appropriate Statement if Trending Dry or Dry Conditions:

- ○ Not Trending Dry or Dry Conditions
- ○ Single Dry Year (Past FY Not Dry)
- ● Multi-Dry Year (Second, Prior FY Dry)
- ○ Multi-Dry Year (Third, Prior Two FYs Dry)
- ○ Multi-Year Drought, Number Year:

Part 2: Water Supply Projections

Fill out water supply projection tables and provide info below (instructions provided in WSDA Procedures Document).

Source River/Reservoir Name	New Hogan Reservoir
Data Source and Type	CDEC NHG Sens 15 (Reservoir Storage)

	Month	Available Source (acre-ft)	Actual WTP Intake (acre-ft)	Actual WTP Supplied (acre-ft)	Representative FY Supplied[1] (acre-ft)	UWMP Year Type Supply[2] (acre-ft)	Water Supplied (acre-ft)
Current FY	Jul	30,050	277	259	232	267	277
	Aug	29,773	277	259	239	262	277
	Sep	29,495	237	221	200	226	237
	Oct	29,259	210	197	169	168	210
	Nov	29,048	140	131	144	113	140
	Dec	28,908	109	102	99	95	109
	Jan	30,928	103	96	92	92	103
	Feb	30,825	92	86	96	83	92
	Mar	30,733	118	111	109	98	118
	Apr	30,614	173	162	116	118	173
	May	30,442			182	178	192
	Jun				221	226	239
	Total FY		1,737	1,625	1,899	1,927	2,169
Following FY	Jul				235	267	268
	Aug				220	262	258
	Sep				189	226	222
	Oct				159	168	175
	Nov				98	113	113
	Dec				89	95	98
	Jan				82	92	93
	Feb				75	83	85
	Mar				102	98	107
	Apr				108	118	121
	May				129	178	164
	Jun				160	226	206
	Total FY				1,645	1,927	1,910

(1) Representative FY selected and any adjustments to monthly data set defined below.

(2) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Representative FY Selected	2020
% Adjustment to Rep FY Data	-7.1%

Provide any additional context or information related to the WSDA water supply analysis below.

(1) Total New Hogan Reservoir (NHG) storage represents estimated remaining CCWD conservation share per Contract No. 14-06-200-5057A with US Bureau of Reclamation; (2) Actual WTP supplied data not readily available; estimated from WTP intake data using 2020 average ratio; (3) Following FY Representative Year assumed FY 2015, during the prior critical drought period in Calaveras County following preceding dry years. This assumes success in CCWD water use efficiency and conservation efforts going forward and/or state conservation mandate(s) for continued drought emergency conditions.

Part 3: Water Use Analysis

Fill out water use projection tables and provide info below (instructions provided in WSDA Procedures Document).

Unauthorized Use Percentage 0.25 %

	Month	Actual Consumption (acre-ft)	UWMP Year Type Demand (acre-ft)	Operational and Non-Meter[1] (acre-ft)	Projected Consumption[2,3] (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)
Current FY	Jul	173	186	3.4	198	173	43
	Aug	195	212	3.8	242	195	49
	Sep	167	180	3.3	195	167	42
	Oct	140	147	2.7	148	140	35
	Nov	109	107	1.9	105	109	27
	Dec	79	66	1.2	63	79	20
	Jan		65	1.2	55	55	14
	Feb		56	1.0	47	47	12
	Mar		73	1.3	88	88	22
	Apr		90	1.6	129	129	32
	May		125	2.3	146	146	36
	Jun		159	2.9	163	163	41
	Total FY	863	1,466	26	1,579	1,490	372
Following FY	Jul		186	3.4	166	166	42
	Aug		212	3.8	188	188	47
	Sep		180	3.3	163	163	41
	Oct		147	2.7	129	129	32
	Nov		107	1.9	105	105	26
	Dec		66	1.2	72	72	18
	Jan		65	1.2	67	67	17
	Feb		56	1.0	58	58	14
	Mar		73	1.3	69	69	17
	Apr		90	1.6	80	80	20
	May		125	2.3	116	116	29
	Jun		159	2.9	152	152	38
	Total FY		1,466	26	1,366	1,366	341

(1) Operational flows or known non-metered consumption in service area.
(2) Current FY projection method defined below.
(3) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Current FY Data Projection Method Used
(see WSDA Procedures Document)

- ○ Method A (Historic Consumption Data)
- ● Method B (Demand Pattern Match)
- ○ Other Method, as Defined Below:

Provide any additional context or information related to the WSDA water use analysis below.

(1) Unauthorized use percentage consistent with American Water Work Association (AWWA) methodology; (2) Method B for 2011 representative FY match used (4.0% avg. diff), used for months JAN through JUN of current FY; (3) No change in FY demand projected for second dry year in sequence, per UWMP (see Section 7.3); (4) Operational and Non-Meter based on ratio of "Unbilled Un-Metered" to "Billed Metered" statistics from latest AWWA Water Loss Audits.

Part 4: Infrastructure Considerations

Fill out infrastructre and system loss tables and provide info below (instructions provided in WSDA Procedures Document).

	Month	Calculated Loss (acre-ft)	Maximum FY Dist. Capacity (acre-ft)	Prior FY Dist. Capacity (acre-ft)	Current Dist. Capacity[1] (acre-ft)
Current FY	Jul	61	310	250	259
	Aug	34	309	258	259
	Sep	27	262	215	221
	Oct	35	194	182	197
	Nov	4	155	155	131
	Dec	11	110	106	102
	Jan	34	108	99	96
	Feb	33	103	103	86
	Mar	8	120	117	111
	Apr	12	176	125	162
	May	10	238	196	
	Jun	36	272	238	
	Total FY	306	2,358	2,043	1,625
Following FY	Jul	60			
	Aug	23			
	Sep	18			
	Oct	13			
	Nov	21			
	Dec	8			
	Jan	9			
	Feb	13			
	Mar	20			
	Apr	21			
	May	19			
	Jun	17			
	Total FY	242			

(1) Based on actual treated water production volumes for current FY.

Maximum Est. Capacity: 310 (acre-ft/month)

Provide any information on infrastructure improvements or alterations made during current and preceding FY for the service area. Provide any additional context or information related to the WSDA system losses and plausible system constrains below.

Information not provided for this initial WSDA trial submission.

Please list anticipated capital projects in the following FY which could influence future system capabilities. This should be limited to CCWD Board of Directors-approved projects or those incuded in the District's Capital Improvement Program (CIP).

Information not provided for this initial WSDA trial submission.

Part 5: Data Compilation

	Month	Water Supplied (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)	Calculated Losses (acre-ft)	Difference (acre-ft)	Highlight[1]
Current FY	Jul	277	173	43	61	0	
	Aug	277	195	49	34	0	
	Sep	237	167	42	27	0	
	Oct	210	140	35	35	0	
	Nov	140	109	27	4	0	
	Dec	109	79	20	11	0	
	Jan	103	55	14	34	0	
	Feb	92	47	12	33	0	
	Mar	118	88	22	8	0	
	Apr	173	129	32	12	0	
	May	192	146	36	10	0	
	Jun	239	163	41	36	0	
	Total FY	2,169	1,490	372	306	0	
Following FY	Jul	268	166	42	60	0	
	Aug	258	188	47	23	0	
	Sep	222	163	41	18	0	
	Oct	175	129	32	13	0	
	Nov	113	105	26	21	-39	X
	Dec	98	72	18	8	0	
	Jan	93	67	17	9	0	
	Feb	85	58	14	13	0	
	Mar	107	69	17	20	0	
	Apr	121	80	20	21	0	
	May	164	116	29	19	0	
	Jun	206	152	38	17	0	
	Total FY	1,910	1,366	341	242	-39	X

(1) Highlighted with "X" for months/FY with negative supply-demand difference.

Based on the above table, provide a description of the current FY and following FY water supply and demand conditions. If there final column contains highlighted rows, describe general CCWD response to deal with periods of inadequate water supply or clarify if WSDA analysis is erroneous.

CCWD remains generally in good water supply condition given access to available New Hogan Reservoir supplies. However, based on historic and projected data there may be a Stage 1 water shortage owing to historic dry year conditions. This WSDA does not account for in-system water storage (e.g., treated water storage tanks), around 14.8 AF total in service area available, or decreased operational losses with increased water use efficiency measures.

Calculated Water Supply Shortage: 1.0% % of Avg.

Recommended Shortage Stage
(see Water Shortage Contingency Plan)

- ○ None
- ● Stage 1 (Up to 10% Shortage)
- ○ Stage 2 (Up to 20% Shortage)
- ○ Stage 3 (Up to 30% Shortage)
- ○ Stage 4 (Up to 40% Shortage)
- ○ Stage 5 (Up to 50% Shortage)
- ○ Stage 6 (More than 50% Shortage)

Each Shortage Stage contains several recommended Demand Reduction Actions (DRAs), as defined by CCWD's Water Shortage Contingency Plan. If a Shortage Stage was selected, describe the DRAs planned for current and following FY, as needed. Describe plans for introducting additional DRAs or increasing Shortage Stage intensity, if needed.

Additional water use efficiency and conservation outreach in-County, voluntary reduction measures, and other public information campaigns (e.g., Calaveras Conserves). CCWD will respond to any state-wide emergency drought declarations or required measures, as needed.

Part 6: Review/Approvals

Provide a description of any amendments or changes to the WSDA process or analysis since the last submission.

Initial WSDA trial submission provided during public review of CCWD 2020 Urban Water Management Plan (UWMP) Update effort. WSDA Procedures and proposed CCWD water shortage conditions, stages, and response actions provided in CCWD 2020 Water Shortage Contingency Plan (WSCP, part of UWMP Update package). Starting in 2022, CCWD will need to submit WSDA contents to the California Department of Water Resources (DWR), per California Water Code requirements. This FY 2021-2022 WSDA will not be submitted to DWR.

Reviewed by CCWD Board of Directors *(Regular Meeting Date)*	(Date)
WSDA Prepared By	 (Signature)
	Brad Arnold (Name)
	Water Resources Prog Mgr. (Title)
	5/21/21 (Date)
	brada@ccwd.org (E-mail Address)
	(209) 754-3094 (Phone Number)
Approved for Form and Sufficiency	(Signature)
	Michael Minkler (Name)
	General Manager (Title)
	(Date)

Calaveras County Water District (CCWD)
Water Supply and Demand Assessment (WSDA)

Fiscal Year (FY)	2021-2022	Actual Data Thru (Month)	APR
Service Area	Sheep Ranch	PWSID	CA0510004
Prepared By	Brad Arnold	Prepared Date	5/21/21

Part 1: Climate and Hydrology

Print and attach the latest CCWD Public Water Resoruces Data Packet (Data Packet) to this WSDA submission, verify the following pages are included:

- Page 2, Precipitation Data: Sub-Region Indices
- Page 3, Precipitation Data: Sub-Region Historic/Potential Data
- Page 4, Reservoir Storage Data
- Page 6, Latest U.S. Drought Monitor Map for California w/Calaveras County Highlighted

Provide a general description of Calaveras County climate and hydrologic conditions below, considering from the start of current water year (preceding October 1st) to the current date. If Data Packet is unavailable, please note and provide other reference information.

Water year conditions for 2020-2021 well below average; latest Data Packet indicates 51.3% of average accumulated precipitation to date for Lower Hwy 4 (Angels Camp) area. Sheep Ranch Service Area very dry, owing to relatively small creek supplies in precipitation-dependent Calaveras River Watershed. Conditions statewide similarly very dry, as seen in latest US Drought Monitor analyses - most of California either in 'Extreme Drought' or 'Exceptional Drought' conditions. On 5/12/2021, California Governor declared drought emergency for 39 counties, including Calaveras County. CCWD anticipates challenging water supply conditions, possible water rights curtailments, and other mandatory drought-related measures throughout remainder of 2021.

Current Average Accumulated Precipitation to Date for Applicable Sub-Region *(see Data Packet Indices)*: 51.3 % of Avg.

Precipitation Historical/Potential Data EOY 9/30 for Applicable Sub-Region *(see Data Packet Historical/Potential Data)*

- ○ Above Typical Range
- ○ Within Typical Range (Top-Half)
- ● Within Typical Range (Bottom-Half)
- ○ Below Typical Range

Current Calaveras County Drought Intensity Status *(see Drought Monitor)*

- ○ None
- ○ D0 Abnormally Dry
- ○ D1 Moderate Drought
- ○ D2 Severe Drought
- ● D3 Extreme Drought
- ○ D4 Exceptional Drought

Potential Hydrologic Conditions *(Approximate, Subject to Change)*: **Dry/Very Dry Conditions**

Select Appropriate Statement if Trending Dry or Dry Conditions:

- ○ Not Trending Dry or Dry Conditions
- ○ Single Dry Year (Past FY Not Dry)
- ● Multi-Dry Year (Second, Prior FY Dry)
- ○ Multi-Dry Year (Third, Prior Two FYs Dry)
- ○ Multi-Year Drought, Number Year:

Part 2: Water Supply Projections

Fill out water supply projection tables and provide info below (instructions provided in WSDA Procedures Document).

Source River/Reservoir Name	Big Trees Creek u/s of White Pines Lake
Data Source and Type	Streamflow Data (Western Hydrologics)

	Month	Available Source (acre-ft)	Actual WTP Intake (acre-ft)	Actual WTP Supplied (acre-ft)	Representative FY Supplied[1] (acre-ft)	UWMP Year Type Supply[2] (acre-ft)	Water Supplied (acre-ft)
Current FY	Jul	36	2.4	2.3	1.6	1.5	2.4
	Aug	28	2.5	2.3	1.2	1.5	2.5
	Sep	23	2.8	2.6	1.1	1.3	2.8
	Oct	24	1.5	1.4	0.8	0.9	1.5
	Nov	26	1.3	1.2	0.4	0.6	1.3
	Dec	27	0.8	0.8	0.6	0.7	0.8
	Jan	41	0.9	0.8	0.4	0.6	0.9
	Feb	29	0.9	0.9	0.3	0.5	0.9
	Mar	72	0.8	0.8	0.4	0.6	0.8
	Apr	79	0.9	0.9	0.4	0.6	0.9
	May				0.5	0.9	0.7
	Jun				1.0	1.3	1.2
	Total FY	386	15	14	9	11	17
Following FY	Jul				1.4	1.5	1.6
	Aug				1.1	1.5	1.4
	Sep				1.3	1.3	1.4
	Oct				0.9	0.9	1.0
	Nov				0.6	0.6	0.6
	Dec				0.7	0.7	0.7
	Jan				0.5	0.6	0.6
	Feb				0.5	0.5	0.5
	Mar				0.6	0.6	0.6
	Apr				0.5	0.6	0.6
	May				0.5	0.9	0.7
	Jun				1.0	1.3	1.2
	Total FY				10	11	11

(1) Representative FY selected and any adjustments to monthly data set defined below.

(2) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Representative FY Selected	2014
% Adjustment to Rep FY Data	-34.6%

Provide any additional context or information related to the WSDA water supply analysis below.

(1) Accumulated streamflow on Big Trees Creek upstream of White Pines Lake shown, this is primary service area supply per Water Right S000249 ; (2) Actual WTP intake data not readily available; estimated from WTP supplied data using 2020 average ratio from nearby service area; (3) Following FY Representative Year assumed FY 2015, during the prior critical drought period in Calaveras County following preceding dry years. This assumes success in CCWD water use efficiency and conservation efforts going forward and/or state conservation mandate(s) for continued drought emergency conditions.

Part 3: Water Use Analysis

Fill out water use projection tables and provide info below (instructions provided in WSDA Procedures Document).

Unauthorized Use Percentage 0.25 %

	Month	Actual Consumption (acre-ft)	UWMP Year Type Demand (acre-ft)	Operational and Non-Meter[1] (acre-ft)	Projected Consumption[2,3] (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)
Current FY	Jul	0.9	0.7	0.02	0.7	0.9	0.2
	Aug	1.1	0.8	0.02	0.8	1.1	0.3
	Sep	1.3	0.9	0.02	0.9	1.3	0.3
	Oct	1.0	0.8	0.02	0.8	1.0	0.2
	Nov	0.7	0.6	0.01	0.6	0.7	0.2
	Dec	0.5	0.3	0.01	0.3	0.5	0.1
	Jan		0.2	0.01	0.2	0.2	0.1
	Feb		0.3	0.01	0.3	0.3	0.1
	Mar		0.3	0.01	0.3	0.3	0.1
	Apr		0.3	0.01	0.3	0.3	0.1
	May		0.4	0.01	0.4	0.4	0.1
	Jun		0.5	0.01	0.5	0.5	0.1
	Total FY	5	6	0.1	6	8	2
Following FY	Jul		0.7	0.02	0.8	0.8	0.2
	Aug		0.8	0.02	0.8	0.8	0.2
	Sep		0.9	0.02	0.8	0.8	0.2
	Oct		0.8	0.02	0.8	0.8	0.2
	Nov		0.6	0.01	0.7	0.7	0.2
	Dec		0.3	0.01	0.5	0.5	0.1
	Jan		0.2	0.01	0.3	0.3	0.1
	Feb		0.3	0.01	0.3	0.3	0.1
	Mar		0.3	0.01	0.2	0.2	0.1
	Apr		0.3	0.01	0.3	0.3	0.1
	May		0.4	0.01	0.5	0.5	0.1
	Jun		0.5	0.01	0.6	0.6	0.2
	Total FY		6	0.1	7	7	2

(1) Operational flows or known non-metered consumption in service area.
(2) Current FY projection method defined below.
(3) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Current FY Data Projection Method Used *(see WSDA Procedures Document)*

- ● Method A (Historic Consumption Data)
- ○ Method B (Demand Pattern Match)
- ○ Other Method, as Defined Below:

Provide any additional context or information related to the WSDA water use analysis below.

(1) Unauthorized use percentage consistent with American Water Work Association (AWWA) methodology; (2) Method A for FY 2008 through FY 2020 average monthly quantities, used for months JAN through JUN of current FY; (3) No change in FY demand projected for second dry year in sequence, per UWMP (see Section 7.3); (4) Operational and Non-Meter based on ratio of "Unbilled Un-Metered" to "Billed Metered" statistics from latest AWWA Water Loss Audits.

Part 4: Infrastructure Considerations

Fill out infrastructre and system loss tables and provide info below (instructions provided in WSDA Procedures Document).

	Month	Calculated Loss (acre-ft)	Maximum FY Dist. Capacity (acre-ft)	Prior FY Dist. Capacity (acre-ft)	Current Dist. Capacity[1] (acre-ft)
Current FY	Jul	1.3	2.4	1.8	2.3
	Aug	1.1	1.8	1.5	2.3
	Sep	1.2	1.7	1.0	2.6
	Oct	0.3	1.3	1.2	1.4
	Nov	0.2	0.9	0.9	1.2
	Dec	0.2	1.0	0.8	0.8
	Jan	0.2	0.8	0.6	0.8
	Feb	0.2	0.7	0.6	0.9
	Mar	0.1	1.0	0.5	0.8
	Apr	0.2	1.0	1.0	0.9
	May	0.1	1.2	1.0	
	Jun	0.2	1.8	1.3	
	Total FY	5	16	12	14
Following FY	Jul	0.3			
	Aug	0.3			
	Sep	0.3			
	Oct	0.2			
	Nov	0.1			
	Dec	0.1			
	Jan	0.1			
	Feb	0.1			
	Mar	0.1			
	Apr	0.1			
	May	0.1			
	Jun	0.2			
	Total FY	2			

(1) Based on actual treated water production volumes for current FY.

Maximum Est. Capacity 2.4 (acre-ft/month)

Provide any information on infrastructure improvements or alterations made during current and preceding FY for the service area. Provide any additional context or information related to the WSDA system losses and plausible system constrains below.

Information not provided for this initial WSDA trial submission.

Please list anticipated capital projects in the following FY which could influence future system capabilities. This should be limited to CCWD Board of Directors-approved projects or those incuded in the District's Capital Improvement Program (CIP).

Information not provided for this initial WSDA trial submission.

Part 5: Data Compilation

	Month	Water Supplied (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)	Calculated Losses (acre-ft)	Difference (acre-ft)	Highlight[1]
Current FY	Jul	2.4	0.9	0.2	1.3	0.0	
	Aug	2.5	1.1	0.3	1.1	0.0	
	Sep	2.8	1.3	0.3	1.2	0.0	
	Oct	1.5	1.0	0.2	0.3	0.0	
	Nov	1.3	0.7	0.2	0.2	0.2	
	Dec	0.8	0.5	0.1	0.2	0.1	
	Jan	0.9	0.2	0.1	0.2	0.4	
	Feb	0.9	0.3	0.1	0.2	0.3	
	Mar	0.8	0.3	0.1	0.1	0.3	
	Apr	0.9	0.3	0.1	0.2	0.3	
	May	0.7	0.4	0.1	0.1	0.1	
	Jun	1.2	0.5	0.1	0.2	0.4	
	Total FY	17	8	2	5	2	
Following FY	Jul	1.6	0.8	0.2	0.3	0.3	
	Aug	1.4	0.8	0.2	0.3	0.1	
	Sep	1.4	0.8	0.2	0.3	0.1	
	Oct	1.0	0.8	0.2	0.2	-0.2	X
	Nov	0.6	0.7	0.2	0.1	-0.3	X
	Dec	0.7	0.5	0.1	0.1	0.0	
	Jan	0.6	0.3	0.1	0.1	0.1	
	Feb	0.5	0.3	0.1	0.1	0.1	
	Mar	0.6	0.2	0.1	0.1	0.2	
	Apr	0.6	0.3	0.1	0.1	0.1	
	May	0.7	0.5	0.1	0.1	0.0	X
	Jun	1.2	0.6	0.2	0.2	0.2	
	Total FY	11	7	2	2	1	

(1) Highlighted with "X" for months/FY with negative supply-demand difference.

Based on the above table, provide a description of the current FY and following FY water supply and demand conditions. If there final column contains highlighted rows, describe general CCWD response to deal with periods of inadequate water supply or clarify if WSDA analysis is erroneous.

CCWD must continue to monitor Big Trees Creek streamflow data, as there coud be months were flows are inadquate to fulfill service area demands (especially in drought conditions). Based on historic and projected data there may be a Stage 1 water shortage owing to historic dry year conditions. This WSDA does not account for in-system water storage (e.g., treated water storage tanks) or decreased operational losses with increased water use efficiency measures. Sheep Ranch remains area of concern based on size of intake facilities, streamflow concerns, etc.

Calculated Water Supply Shortage: 9.1% % of Avg.

Recommended Shortage Stage
(see Water Shortage Contingency Plan)

- ○ None
- ● Stage 1 (Up to 10% Shortage)
- ○ Stage 2 (Up to 20% Shortage)
- ○ Stage 3 (Up to 30% Shortage)
- ○ Stage 4 (Up to 40% Shortage)
- ○ Stage 5 (Up to 50% Shortage)
- ○ Stage 6 (More than 50% Shortage)

Each Shortage Stage contains several recommended Demand Reduction Actions (DRAs), as defined by CCWD's Water Shortage Contingency Plan. If a Shortage Stage was selected, describe the DRAs planned for current and following FY, as needed. Describe plans for introducting additional DRAs or increasing Shortage Stage intensity, if needed.

Additional water use efficiency and conservation outreach in-County, voluntary reduction measures, and other public information campaigns (e.g., Calaveras Conserves). CCWD will respond to any state-wide emergency drought declarations or required measures, as needed.

Part 6: Review/Approvals

Provide a description of any amendments or changes to the WSDA process or analysis since the last submission.

Initial WSDA trial submission provided during public review of CCWD 2020 Urban Water Management Plan (UWMP) Update effort. WSDA Procedures and proposed CCWD water shortage conditions, stages, and response actions provided in CCWD 2020 Water Shortage Contingency Plan (WSCP, part of UWMP Update package). Starting in 2022, CCWD will need to submit WSDA contents to the California Department of Water Resources (DWR), per California Water Code requirements. This FY 2021-2022 WSDA will not be submitted to DWR.

Reviewed by CCWD Board of Directors *(Regular Meeting Date)*		(Date)
WSDA Prepared By		(Signature)
	Brad Arnold	(Name)
	Water Resources Prog Mgr.	(Title)
	5/21/21	(Date)
	brada@ccwd.org	(E-mail Address)
	(209) 754-3094	(Phone Number)
Approved for Form and Sufficiency		(Signature)
	Michael Minkler	(Name)
	General Manager	(Title)
		(Date)

Calaveras County Water District (CCWD)
Water Supply and Demand Assessment (WSDA)

Fiscal Year (FY)	2021-2022	Actual Data Thru (Month)	APR
Service Area	Wallace	PWSID	CA0510019
Prepared By	Brad Arnold	Prepared Date	5/21/21

Part 1: Climate and Hydrology

Print and attach the latest CCWD Public Water Resoruces Data Packet (Data Packet) to this WSDA submission, verify the following pages are included:

- Page 2, Precipitation Data: Sub-Region Indices
- Page 3, Precipitation Data: Sub-Region Historic/Potential Data
- Page 4, Reservoir Storage Data
- Page 6, Latest U.S. Drought Monitor Map for California w/Calaveras County Highlighted

Provide a general description of Calaveras County climate and hydrologic conditions below, considering from the start of current water year (preceding October 1st) to the current date. If Data Packet is unavailable, please note and provide other reference information.

Water year conditions for 2020-2021 well below average; latest Data Packet indicates 71.2% of average accumulated precipitation to date for Valley Springs/Jenny Lind area. Wallace Service Area dry, but not as dry as other parts of the County. Conditions statewide similarly very dry, as seen in latest US Drought Monitor analyses - most of California either in 'Extreme Drought' or 'Exceptional Drought' conditions. On 5/12/2021, California Governor declared drought emergency for 39 counties, including Calaveras County. CCWD anticipates challenging water supply conditions, possible water rights curtailments, and other mandatory drought-related measures throughout remainder of 2021.

Current Average Accumulated Precipitation to Date for Applicable Sub-Region *(see Data Packet Indices)*: 71.2 % of Avg.

Precipitation Historical/Potential Data EOY 9/30 for Applicable Sub-Region *(see Data Packet Historical/Potential Data)*

- ○ Above Typical Range
- ○ Within Typical Range (Top-Half)
- ● Within Typical Range (Bottom-Half)
- ○ Below Typical Range

Current Calaveras County Drought Intensity Status *(see Drought Monitor)*

- ○ None
- ○ D0 Abnormally Dry
- ○ D1 Moderate Drought
- ○ D2 Severe Drought
- ● D3 Extreme Drought
- ○ D4 Exceptional Drought

Potential Hydrologic Conditions *(Approximate, Subject to Change)*: **Dry/Very Dry Conditions**

Select Appropriate Statement if Trending Dry or Dry Conditions:

- ○ Not Trending Dry or Dry Conditions
- ○ Single Dry Year (Past FY Not Dry)
- ● Multi-Dry Year (Second, Prior FY Dry)
- ○ Multi-Dry Year (Third, Prior Two FYs Dry)
- ○ Multi-Year Drought, Number Year:

Part 2: Water Supply Projections

Fill out water supply projection tables and provide info below (instructions provided in WSDA Procedures Document).

Source River/Reservoir Name	Eastern San Joaquin Groundwater Subbasin
Data Source and Type	CCWD Groundwater Well Capacity

	Month	Available Source (acre-ft)	Actual WTP Intake (acre-ft)	Actual WTP Supplied (acre-ft)	Representative FY Supplied[1] (acre-ft)	UWMP Year Type Supply[2] (acre-ft)	Water Supplied (acre-ft)
Current FY	Jul	35	9.4	8.8	8.2	7.9	9.4
	Aug	35	9.5	8.9	7.6	7.4	9.5
	Sep	35	7.8	7.3	6.5	5.9	7.8
	Oct	35	6.8	6.4	5.5	5.0	6.8
	Nov	35	4.9	4.6	4.5	2.7	4.9
	Dec	35	3.6	3.4	2.6	2.4	3.6
	Jan	35	3.1	2.9	2.8	2.1	3.1
	Feb	35	3.1	2.9	1.9	2.3	3.1
	Mar	35	3.7	3.5	2.4	2.2	3.7
	Apr	35	5.5	5.1	3.2	2.9	5.5
	May	35			5.2	4.9	5.4
	Jun	35			6.3	6.3	6.7
	Total FY	420	57	54	57	52	70
Following FY	Jul	35			7.6	7.9	8.2
	Aug	35			6.9	7.4	7.6
	Sep	35			6.0	5.9	6.4
	Oct	35			4.6	5.0	5.1
	Nov	35			2.7	2.7	2.9
	Dec	35			2.1	2.4	2.4
	Jan	35			2.0	2.1	2.2
	Feb	35			2.0	2.3	2.3
	Mar	35			3.6	2.2	3.1
	Apr	35			3.5	2.9	3.4
	May	35			4.0	4.9	4.8
	Jun	35			4.9	6.3	6.0
	Total FY	420			50	52	54

(1) Representative FY selected and any adjustments to monthly data set defined below.

(2) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Representative FY Selected	2014
% Adjustment to Rep FY Data	-10.8%

Provide any additional context or information related to the WSDA water supply analysis below.

(1) Available supplies reflects maximum potential from x2 200 gpm groundwater wells in service area, with reduction for well efficiency purposes; (2) Actual WTP intake data not readily available; estimated from WTP supplied data using 2020 average ratio; (3) Following FY Representative Year assumed FY 2015, during the prior critical drought period in Calaveras County following preceding dry years. This assumes success in CCWD water use efficiency and conservation efforts going forward and/or state conservation mandate(s) for continued drought emergency conditions.

Part 3: Water Use Analysis

Fill out water use projection tables and provide info below (instructions provided in WSDA Procedures Document).

Unauthorized Use Percentage 0.25 %

	Month	Actual Consumption (acre-ft)	UWMP Year Type Demand (acre-ft)	Operational and Non-Meter[1] (acre-ft)	Projected Consumption[2,3] (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)
Current FY	Jul	6.3	6.1	0.1	7.1	6.3	1.6
	Aug	7.1	7.0	0.1	7.1	7.1	1.8
	Sep	5.8	5.6	0.1	6.2	5.8	1.5
	Oct	4.6	4.2	0.1	5.3	4.6	1.1
	Nov	3.7	3.1	0.0	4.1	3.7	0.9
	Dec	2.8	2.0	0.0	2.9	2.8	0.7
	Jan		2.1	0.0	2.5	2.5	0.6
	Feb		2.1	0.0	2.1	2.1	0.5
	Mar		2.5	0.0	2.6	2.6	0.6
	Apr		3.0	0.0	3.0	3.0	0.8
	May		3.7	0.1	4.5	4.5	1.1
	Jun		4.5	0.1	6.0	6.0	1.5
	Total FY	30	46	0.7	53	51	13
Following FY	Jul		6.1	0.1	5.7	5.7	1.4
	Aug		7.0	0.1	6.5	6.5	1.6
	Sep		5.6	0.1	5.6	5.6	1.4
	Oct		4.2	0.1	4.6	4.6	1.2
	Nov		3.1	0.0	3.4	3.4	0.9
	Dec		2.0	0.0	2.2	2.2	0.6
	Jan		2.1	0.0	2.2	2.2	0.5
	Feb		2.1	0.0	2.0	2.0	0.5
	Mar		2.5	0.0	2.5	2.5	0.6
	Apr		3.0	0.0	3.0	3.0	0.7
	May		3.7	0.1	4.2	4.2	1.0
	Jun		4.5	0.1	5.3	5.3	1.3
	Total FY		46	0.7	47	47	12

(1) Operational flows or known non-metered consumption in service area.
(2) Current FY projection method defined below.
(3) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Current FY Data Projection Method Used *(see WSDA Procedures Document)*

- ○ Method A (Historic Consumption Data)
- ● Method B (Demand Pattern Match)
- ○ Other Method, as Defined Below:

Provide any additional context or information related to the WSDA water use analysis below.

(1) Unauthorized use percentage consistent with American Water Work Association (AWWA) methodology; (2) Method B for 2014 representative FY match used (6.8% avg. diff), used for months JAN through JUN of current FY; (3) No change in FY demand projected for second dry year in sequence, per UWMP (see Section 7.3); (4) Operational and Non-Meter based on ratio of "Unbilled Un-Metered" to "Billed Metered" statistics from latest AWWA Water Loss Audits.

Part 4: Infrastructure Considerations

Fill out infrastructre and system loss tables and provide info below (instructions provided in WSDA Procedures Document).

	Month	Calculated Loss (acre-ft)	Maximum FY Dist. Capacity (acre-ft)	Prior FY Dist. Capacity (acre-ft)	Current Dist. Capacity[1] (acre-ft)
Current FY	Jul	1.5	9.2	7.8	8.8
	Aug	1.8	8.8	8.1	8.9
	Sep	1.4	7.3	6.7	7.3
	Oct	1.1	6.1	5.4	6.4
	Nov	0.9	5.0	4.6	4.6
	Dec	0.7	2.9	2.2	3.4
	Jan	0.6	3.1	2.4	2.9
	Feb	0.6	2.9	2.9	2.9
	Mar	0.7	3.6	3.4	3.5
	Apr	1.7	4.2	3.9	5.1
	May	1.0	6.3	6.2	
	Jun	1.2	7.6	7.2	
	Total FY	13	67	61	54
Following FY	Jul	1.1			
	Aug	1.4			
	Sep	1.2			
	Oct	1.0			
	Nov	0.5			
	Dec	0.5			
	Jan	0.4			
	Feb	0.4			
	Mar	0.6			
	Apr	0.6			
	May	0.9			
	Jun	1.1			
	Total FY	10			

(1) Based on actual treated water production volumes for current FY.

Maximum Est. Capacity 9.2 (acre-ft/month)

Provide any information on infrastructure improvements or alterations made during current and preceding FY for the service area. Provide any additional context or information related to the WSDA system losses and plausible system constrains below.

Information not provided for this initial WSDA trial submission.

Please list anticipated capital projects in the following FY which could influence future system capabilities. This should be limited to CCWD Board of Directors-approved projects or those incuded in the District's Capital Improvement Program (CIP).

Information not provided for this initial WSDA trial submission.

Part 5: Data Compilation

	Month	Water Supplied (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)	Calculated Losses (acre-ft)	Difference (acre-ft)	Highlight[1]
Current FY	Jul	9.4	6.3	1.6	1.5	0	
	Aug	9.5	7.1	1.8	1.8	-1.2	X
	Sep	7.8	5.8	1.5	1.4	-1.0	X
	Oct	6.8	4.6	1.1	1.1	0	
	Nov	4.9	3.7	0.9	0.9	-0.6	X
	Dec	3.6	2.8	0.7	0.7	-0.6	X
	Jan	3.1	2.5	0.6	0.6	-0.6	X
	Feb	3.1	2.1	0.5	0.6	-0.1	X
	Mar	3.7	2.6	0.6	0.7	-0.2	X
	Apr	5.5	3.0	0.8	1.7	0	
	May	5.4	4.5	1.1	1.0	-1.3	X
	Jun	6.7	6.0	1.5	1.2	-2.0	X
	Total FY	70	51	13	13	-7	X
Following FY	Jul	8.2	5.7	1.4	1.1	0	
	Aug	7.6	6.5	1.6	1.4	-1.9	X
	Sep	6.4	5.6	1.4	1.2	-1.8	X
	Oct	5.1	4.6	1.2	1.0	-1.6	X
	Nov	2.9	3.4	0.9	0.5	-1.9	X
	Dec	2.4	2.2	0.6	0.5	-0.8	X
	Jan	2.2	2.2	0.5	0.4	-0.9	X
	Feb	2.3	2.0	0.5	0.4	-0.6	X
	Mar	3.1	2.5	0.6	0.6	-0.6	X
	Apr	3.4	3.0	0.7	0.6	-1.0	X
	May	4.8	4.2	1.0	0.9	-1.3	X
	Jun	6.0	5.3	1.3	1.1	-1.8	X
	Total FY	54	47	12	10	-14	X

(1) Highlighted with "X" for months/FY with negative supply-demand difference.

Based on the above table, provide a description of the current FY and following FY water supply and demand conditions. If there final column contains highlighted rows, describe general CCWD response to deal with periods of inadequate water supply or clarify if WSDA analysis is erroneous.

As identified in the 2020 UWMP Update, Wallace is at risk of water shortage due to its sole reliance on local groundwater resources. The data above indicate that with an additional dry year, Wallace could be at higher risk of shortage without some implemented response actions or increased groundwater pumping. As such, the data indicate a Stage 2 water shortage may be appropriate for these historic dry year conditions. Note this WSDA does not account for in-system water storage (e.g., treated water storage tanks) or decreased losses with increased efficiency measures.

Calculated Water Supply Shortage: 18.4% % of Avg.

Recommended Shortage Stage
(see Water Shortage Contingency Plan)

- ○ None
- ○ Stage 1 (Up to 10% Shortage)
- ● Stage 2 (Up to 20% Shortage)
- ○ Stage 3 (Up to 30% Shortage)
- ○ Stage 4 (Up to 40% Shortage)
- ○ Stage 5 (Up to 50% Shortage)
- ○ Stage 6 (More than 50% Shortage)

Each Shortage Stage contains several recommended Demand Reduction Actions (DRAs), as defined by CCWD's Water Shortage Contingency Plan. If a Shortage Stage was selected, describe the DRAs planned for current and following FY, as needed. Describe plans for introducting additional DRAs or increasing Shortage Stage intensity, if needed.

Depending on operational capabilities in Wallace, the CCWD Board of Directors may elect to implement certain water shortage actions related to outdoor (landscape) irrigation or other uses specific to this area; Stage 2 shortage measures proposed in 2020 Water Shortage Contingency Plan (WSCP). Plans may include additional water use efficiency and conservation outreach in-County, voluntary reduction measures, and other public information campaigns. CCWD will also respond to any state-wide emergency drought declarations or required measures, as needed.

Part 6: Review/Approvals

Provide a description of any amendments or changes to the WSDA process or analysis since the last submission.

Initial WSDA trial submission provided during public review of CCWD 2020 Urban Water Management Plan (UWMP) Update effort. WSDA Procedures and proposed CCWD water shortage conditions, stages, and response actions provided in CCWD 2020 Water Shortage Contingency Plan (WSCP, part of UWMP Update package). Starting in 2022, CCWD will need to submit WSDA contents to the California Department of Water Resources (DWR), per California Water Code requirements. This FY 2021-2022 WSDA will not be submitted to DWR.

Reviewed by CCWD Board of Directors *(Regular Meeting Date)*	(Date)
WSDA Prepared By	 (Signature)
	Brad Arnold (Name)
	Water Resources Prog Mgr. (Title)
	5/21/21 (Date)
	brada@ccwd.org (E-mail Address)
	(209) 754-3094 (Phone Number)
Approved for Form and Sufficiency	(Signature)
	Michael Minkler (Name)
	General Manager (Title)
	(Date)

Calaveras County Water District (CCWD)
Water Supply and Demand Assessment (WSDA)

Fiscal Year (FY)	2021-2022	Actual Data Thru (Month)	APR
Service Area	West Point	PWSID	CA0510005
Prepared By	Brad Arnold	Prepared Date	5/21/21

Part 1: Climate and Hydrology

Print and attach the latest CCWD Public Water Resoruces Data Packet (Data Packet) to this WSDA submission, verify the following pages are included:

- Page 2, Precipitation Data: Sub-Region Indices
- Page 3, Precipitation Data: Sub-Region Historic/Potential Data
- Page 4, Reservoir Storage Data
- Page 6, Latest U.S. Drought Monitor Map for California w/Calaveras County Highlighted

Provide a general description of Calaveras County climate and hydrologic conditions below, considering from the start of current water year (preceding October 1st) to the current date. If Data Packet is unavailable, please note and provide other reference information.

Water year conditions for 2020-2021 well below average; latest Data Packet indicates 49.9% of average accumulated precipitation to date for Mokelumne Watershed (West Point) area. West Point Service Area is generally dry similar to other areas in the Mokelumne Watershed. Conditions statewide similarly very dry, as seen in latest US Drought Monitor analyses - most of California either in 'Extreme Drought' or 'Exceptional Drought' conditions. On 5/12/2021, California Governor declared drought emergency for 39 counties, including Calaveras County. CCWD anticipates challenging water supply conditions, possible water rights curtailments, and other mandatory drought-related measures throughout remainder of 2021.

Current Average Accumulated Precipitation to Date for Applicable Sub-Region *(see Data Packet Indices)*: 49.9 % of Avg.

Precipitation Historical/Potential Data EOY 9/30 for Applicable Sub-Region *(see Data Packet Historical/Potential Data)*

- ○ Above Typical Range
- ○ Within Typical Range (Top-Half)
- ● Within Typical Range (Bottom-Half)
- ○ Below Typical Range

Current Calaveras County Drought Intensity Status *(see Drought Monitor)*

- ○ None
- ○ D0 Abnormally Dry
- ○ D1 Moderate Drought
- ○ D2 Severe Drought
- ● D3 Extreme Drought
- ○ D4 Exceptional Drought

Potential Hydrologic Conditions *(Approximate, Subject to Change)*: **Dry/Very Dry Conditions**

Select Appropriate Statement if Trending Dry or Dry Conditions:

- ○ Not Trending Dry or Dry Conditions
- ○ Single Dry Year (Past FY Not Dry)
- ● Multi-Dry Year (Second, Prior FY Dry)
- ○ Multi-Dry Year (Third, Prior Two FYs Dry)
- ○ Multi-Year Drought, Number Year:

Part 2: Water Supply Projections

Fill out water supply projection tables and provide info below (instructions provided in WSDA Procedures Document).

Source River/Reservoir Name	Bear Creek (and Bummerville Res. Storage)
Data Source and Type	CCWD Picovale Streamgage

	Month	Available Source (acre-ft)	Actual WTP Intake (acre-ft)	Actual WTP Supplied (acre-ft)	Representative FY Supplied[1] (acre-ft)	UWMP Year Type Supply[2] (acre-ft)	Water Supplied (acre-ft)
Current FY	Jul	281	22	20	39	19	22
	Aug	256	24	22	39	21	24
	Sep	259	23	21	37	16	23
	Oct	236	17	16	24	12	17
	Nov	216	13	12	21	9	13
	Dec	213	11	11	9	9	11
	Jan	249	11	10	8	9	11
	Feb	230	10	9	7	8	10
	Mar	261	10	10	7	9	10
	Apr	268	14	13	10	8	14
	May				12	12	13
	Jun				16	19	19
	Total FY		155	145	231	151	186
Following FY	Jul				21	19	21
	Aug				18	21	21
	Sep				16	16	17
	Oct				12	12	13
	Nov				8	9	9
	Dec				7	9	9
	Jan				9	9	10
	Feb				7	8	8
	Mar				9	9	9
	Apr				11	8	11
	May				23	12	19
	Jun				30	19	26
	Total FY				172	151	173

(1) Representative FY selected and any adjustments to monthly data set defined below.

(2) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Representative FY Selected	2016
% Adjustment to Rep FY Data	-3.8%

Provide any additional context or information related to the WSDA water supply analysis below.

(1) Available source represents sum of monthly accumulated Bear Creek flows, Middle Fork Mokelumne River supplies available for purchase from CPUD, and Bummerville Regulating Reservoir storage; (2) Actual WTP intake data not readily available; estimated from WTP supplied data using 2020 average ratio for local service area; (3) Following FY Representative Year assumed FY 2015, during the prior critical drought period in Calaveras County following preceding dry years. This assumes success in CCWD water use efficiency and conservation efforts going forward and/or state conservation mandate(s) for continued drought emergency conditions.

Part 3: Water Use Analysis

Fill out water use projection tables and provide info below (instructions provided in WSDA Procedures Document).

Unauthorized Use Percentage 0.25 %

	Month	Actual Consumption (acre-ft)	UWMP Year Type Demand (acre-ft)	Operational and Non-Meter[1] (acre-ft)	Projected Consumption[2,3] (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)
Current FY	Jul	15	13	0.2	18	15	4
	Aug	17	15	0.3	21	17	4
	Sep	14	12	0.2	16	14	4
	Oct	11	9	0.2	11	11	3
	Nov	10	7	0.1	9	10	3
	Dec	9	5	0.1	6	9	2
	Jan		5	0.1	6	6	2
	Feb		5	0.1	6	6	2
	Mar		5	0.1	8	8	2
	Apr		6	0.1	9	9	2
	May		8	0.2	14	14	3
	Jun		11	0.2	18	18	5
	Total FY	78	102	2	144	140	35
Following FY	Jul		13	0.2	13	13	3
	Aug		15	0.3	15	15	4
	Sep		12	0.2	12	12	3
	Oct		9	0.2	10	10	2
	Nov		7	0.1	8	8	2
	Dec		5	0.1	6	6	2
	Jan		5	0.1	6	6	1
	Feb		5	0.1	6	6	1
	Mar		5	0.1	6	6	2
	Apr		6	0.1	7	7	2
	May		8	0.2	9	9	2
	Jun		11	0.2	12	12	3
	Total FY		102	2	110	110	27

(1) Operational flows or known non-metered consumption in service area.
(2) Current FY projection method defined below.
(3) Subsequent FY dry year based on corresponding UWMP data for sequence defined in first page *(see Trending Dry or Dry Year Statement Selection).*

Current FY Data Projection Method Used *(see WSDA Procedures Document)*

- ○ Method A (Historic Consumption Data)
- ● Method B (Demand Pattern Match)
- ○ Other Method, as Defined Below:

Provide any additional context or information related to the WSDA water use analysis below.

(1) Unauthorized use percentage consistent with American Water Work Association (AWWA) methodology; (2) Method B for 2009 representative FY match used (1.8% avg. diff), used for months JAN through JUN of current FY; (3) No change in FY demand projected for second dry year in sequence, per UWMP (see Section 7.3); (4) Operational and Non-Meter based on ratio of "Unbilled Un-Metered" to "Billed Metered" statistics from latest AWWA Water Loss Audits.

Part 4: Infrastructure Considerations

Fill out infrastructre and system loss tables and provide info below (instructions provided in WSDA Procedures Document).

	Month	Calculated Loss (acre-ft)	Maximum FY Dist. Capacity (acre-ft)	Prior FY Dist. Capacity (acre-ft)	Current Dist. Capacity[1] (acre-ft)
Current FY	Jul	2	38	20	20
	Aug	2	38	19	22
	Sep	5	36	17	21
	Oct	3	30	14	16
	Nov	2	28	13	12
	Dec	2	18	11	11
	Jan	3	15	10	10
	Feb	2	15	10	9
	Mar	2	17	10	10
	Apr	3	15	10	13
	May	2	23	15	
	Jun	3	30	18	
	Total FY	32	303	166	145
Following FY	Jul	5			
	Aug	2			
	Sep	2			
	Oct	2			
	Nov	2			
	Dec	2			
	Jan	2			
	Feb	1			
	Mar	2			
	Apr	2			
	May	7			
	Jun	11			
	Total FY	41			

(1) Based on actual treated water production volumes for current FY.

Maximum Est. Capacity 38 (acre-ft/month)

Provide any information on infrastructure improvements or alterations made during current and preceding FY for the service area. Provide any additional context or information related to the WSDA system losses and plausible system constrains below.

Information not provided for this initial WSDA trial submission.

Please list anticipated capital projects in the following FY which could influence future system capabilities. This should be limited to CCWD Board of Directors-approved projects or those incuded in the District's Capital Improvement Program (CIP).

Information not provided for this initial WSDA trial submission.

Part 5: Data Compilation

	Month	Water Supplied (acre-ft)	Authorized Consumption (acre-ft)	Unauthorized Consumption (acre-ft)	Calculated Losses (acre-ft)	Difference (acre-ft)	Highlight[1]
Current FY	Jul	22	15	4	2	0	
	Aug	24	17	4	2	0	
	Sep	23	14	4	5	0	
	Oct	17	11	3	3	0	
	Nov	13	10	3	2	-2	X
	Dec	11	9	2	2	-2	X
	Jan	11	6	2	3	0	
	Feb	10	6	2	2	0	
	Mar	10	8	2	2	-1	X
	Apr	14	9	2	3	0	
	May	13	14	3	2	-7	X
	Jun	19	18	5	3	-8	X
	Total FY	186	140	35	32	-21	X
Following FY	Jul	21	13	3	5	0	
	Aug	21	15	4	2	0	
	Sep	17	12	3	2	0	
	Oct	13	10	2	2	-2	X
	Nov	9	8	2	2	-3	X
	Dec	9	6	2	2	-1	X
	Jan	10	6	1	2	0	
	Feb	8	6	1	1	-1	X
	Mar	9	6	2	2	0	
	Apr	11	7	2	2	0	
	May	19	9	2	7	0	
	Jun	26	12	3	11	0	
	Total FY	173	110	27	41	-6	X

(1) Highlighted with "X" for months/FY with negative supply-demand difference.

Based on the above table, provide a description of the current FY and following FY water supply and demand conditions. If there final column contains highlighted rows, describe general CCWD response to deal with periods of inadequate water supply or clarify if WSDA analysis is erroneous.

CCWD remains generally in good water supply condition given access to MF Mokelumne River supplies via agreement with CPUD using Schaads Reservoir (up to 200 AF/yr). However, based on historic and projected data there may be a Stage 1 water shortage owing to historic dry year conditions. This WSDA does not account for in-system water storage (e.g., treated water storage tanks) or decreased operational losses with increased water use efficiency measures.

Calculated Water Supply Shortage: 7.2% % of Avg.

Recommended Shortage Stage
(see Water Shortage Contingency Plan)

- ○ None
- ● Stage 1 (Up to 10% Shortage)
- ○ Stage 2 (Up to 20% Shortage)
- ○ Stage 3 (Up to 30% Shortage)
- ○ Stage 4 (Up to 40% Shortage)
- ○ Stage 5 (Up to 50% Shortage)
- ○ Stage 6 (More than 50% Shortage)

Each Shortage Stage contains several recommended Demand Reduction Actions (DRAs), as defined by CCWD's Water Shortage Contingency Plan. If a Shortage Stage was selected, describe the DRAs planned for current and following FY, as needed. Describe plans for introducting additional DRAs or increasing Shortage Stage intensity, if needed.

Additional water use efficiency and conservation outreach in-County, voluntary reduction measures, and other public information campaigns (e.g., Calaveras Conserves). CCWD will respond to any state-wide emergency drought declarations or required measures, as needed.

Part 6: Review/Approvals

Provide a description of any amendments or changes to the WSDA process or analysis since the last submission.

Initial WSDA trial submission provided during public review of CCWD 2020 Urban Water Management Plan (UWMP) Update effort. WSDA Procedures and proposed CCWD water shortage conditions, stages, and response actions provided in CCWD 2020 Water Shortage Contingency Plan (WSCP, part of UWMP Update package). Starting in 2022, CCWD will need to submit WSDA contents to the California Department of Water Resources (DWR), per California Water Code requirements. This FY 2021-2022 WSDA will not be submitted to DWR.

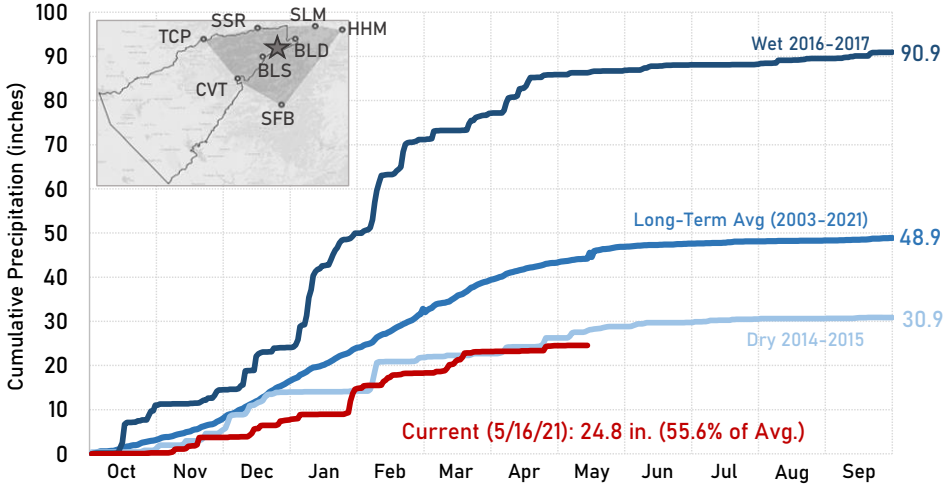
Reviewed by CCWD Board of Directors *(Regular Meeting Date)*	(Date)
WSDA Prepared By	 (Signature)
Brad Arnold	(Name)
Water Resources Prog Mgr.	(Title)
5/21/21	(Date)
brada@ccwd.org	(E-mail Address)
(209) 754-3094	(Phone Number)
Approved for Form and Sufficiency	(Signature)
Michael Minkler	(Name)
General Manager	(Title)
	(Date)

For Example Only

Calaveras County Precipitation Data: Sub-Region Indicies (thru May 16, 2021)

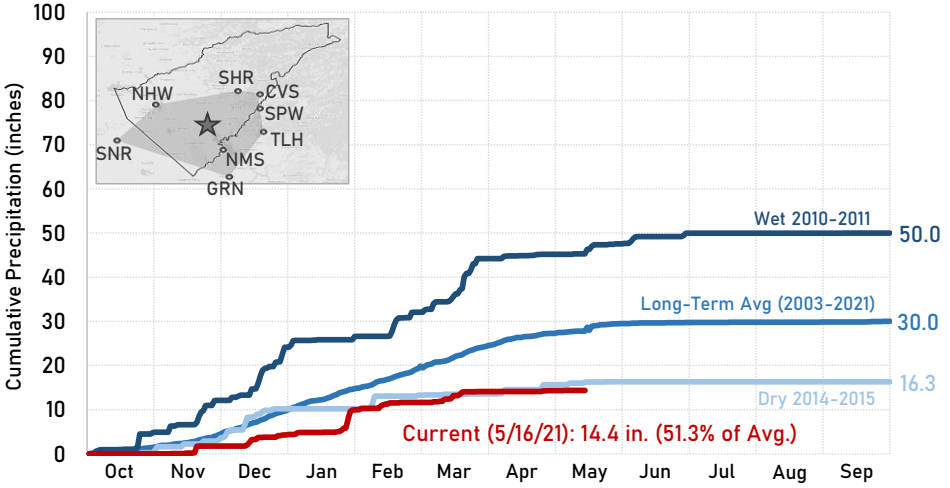
Provided by Calaveras County Water District, using data from CA Dept. of Water Resources 'California Data Exchange Center' (CDEC).

Upper Hwy 4 (Ebbetts Pass)



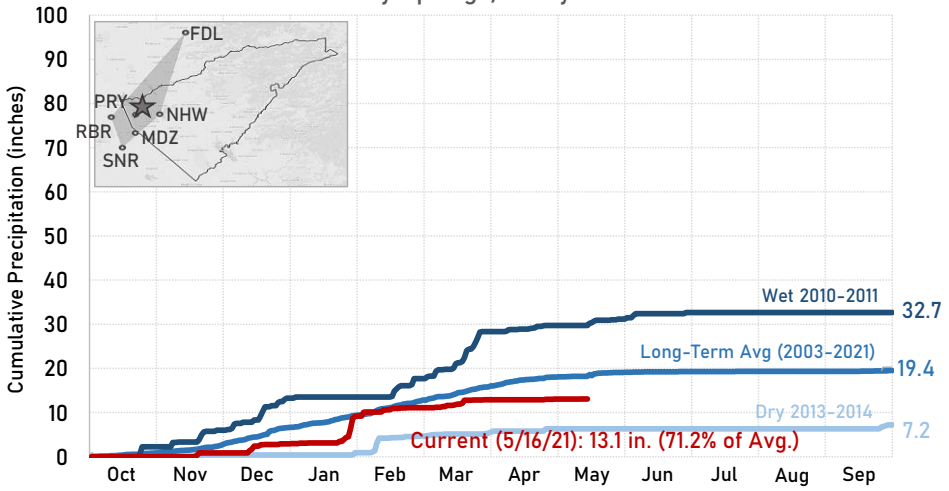
'Inverse Distance Weighted' to CDEC Station Centroid at (38.40329, -120.137).

Lower Hwy 4 (Angels Camp/Copperopolis)



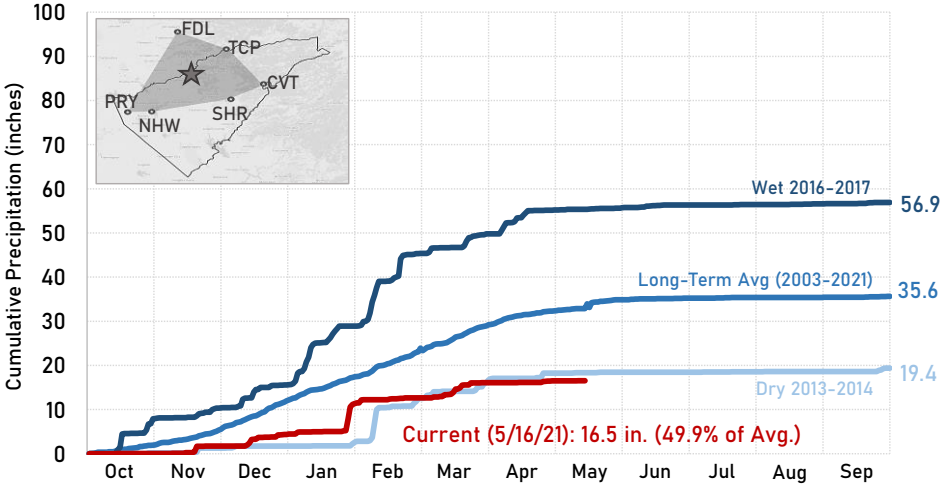
'Inverse Distance Weighted' to CDEC Station Centroid at (38.06243, -120.546).

Valley Springs/Jenny Lind



'Inverse Distance Weighted' to CDEC Station Centroid at (38.1708, -120.896).

Mokelumne Watershed (West Point)



'Inverse Distance Weighted' to CDEC Station Centroid at (38.29596, -120.617).

Note: Graphs illustrate accumulated (total) precipitation in four parts of Calaveras County since last October 1st.

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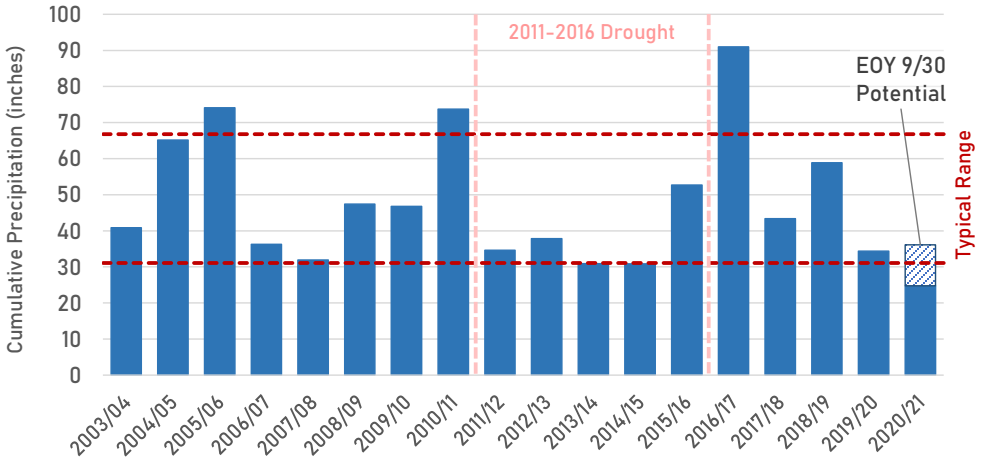
For Example Only

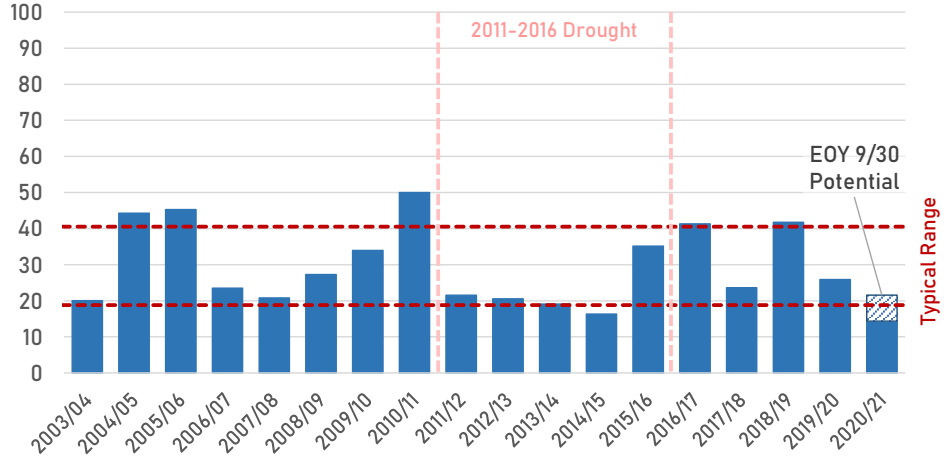
Calaveras County Precipitation Data: Sub-Region Historical/Potential Data

Provided by Calaveras County Water District, using data from CA Dept. of Water Resources 'California Data Exchange Center' (CDEC).

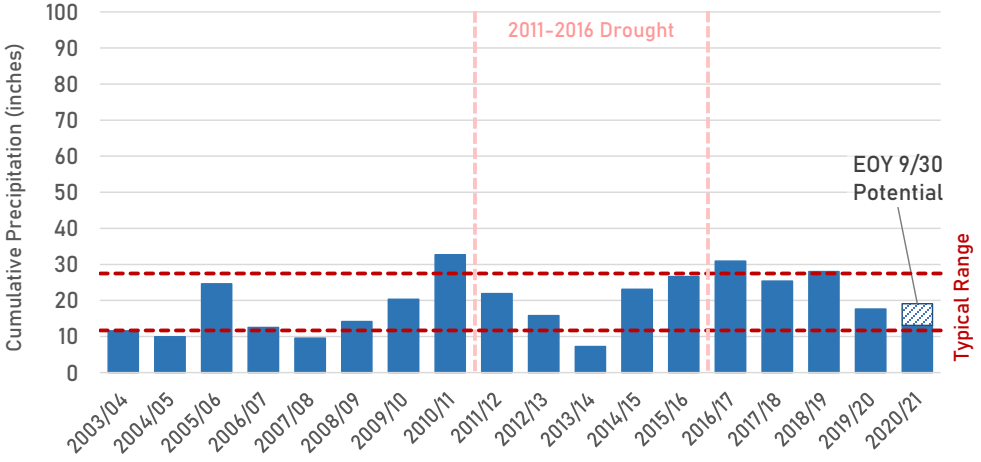
Upper Hwy 4 (Ebbetts Pass)



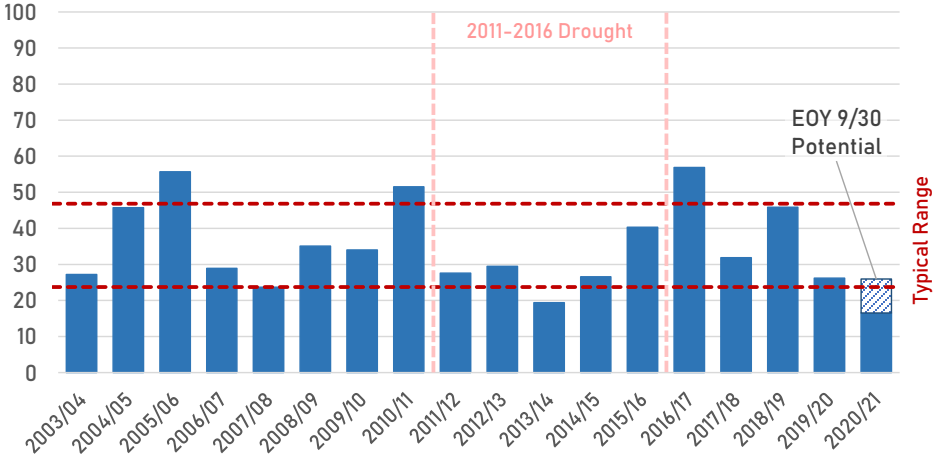
Lower Hwy 4 (Angels Camp/Copperopolis)



Valley Springs/Jenny Lind



Mokelumne Watershed (West Point)



Note: Graphs illustrate total annual (Oct 1 to Sept 30) precipitation since 2003, with potential current end of year (EOY) value based on historic data trends - *does not indicate predicted precipitation or year type.*

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Calaveras County Reservoir Storage Data (thru May 16, 2021)

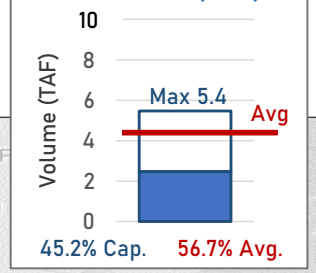
Provided by Calaveras County Water District, using data from CA Dept. of Water Resources 'California Data Exchange Center' (CDEC).

Notes:
[1] Owned and operated by US Bureau of Reclamation (USBR).
[2] Owned and operated by US Army Corps of Engineers (USACE).
[3] Owned and operated by Pacific Gas & Electric Company (PG&E).
[4] Owned and operated by Tri-Dam Project.

"Upper Reservoirs"

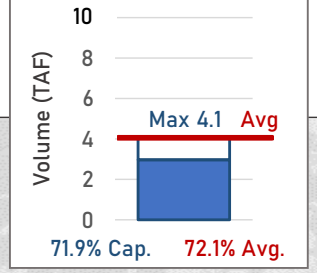
Coordinated usage between Calaveras County Water District, Utica Water and Power Authority, and Northern California Power Agency (NCPA).

Utica/Union Reservoirs (UTI*)

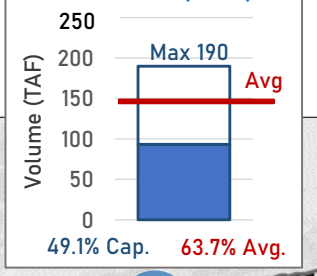


*Approx. combined using Utica Reservoir data.

Lake Alpine (LEA)



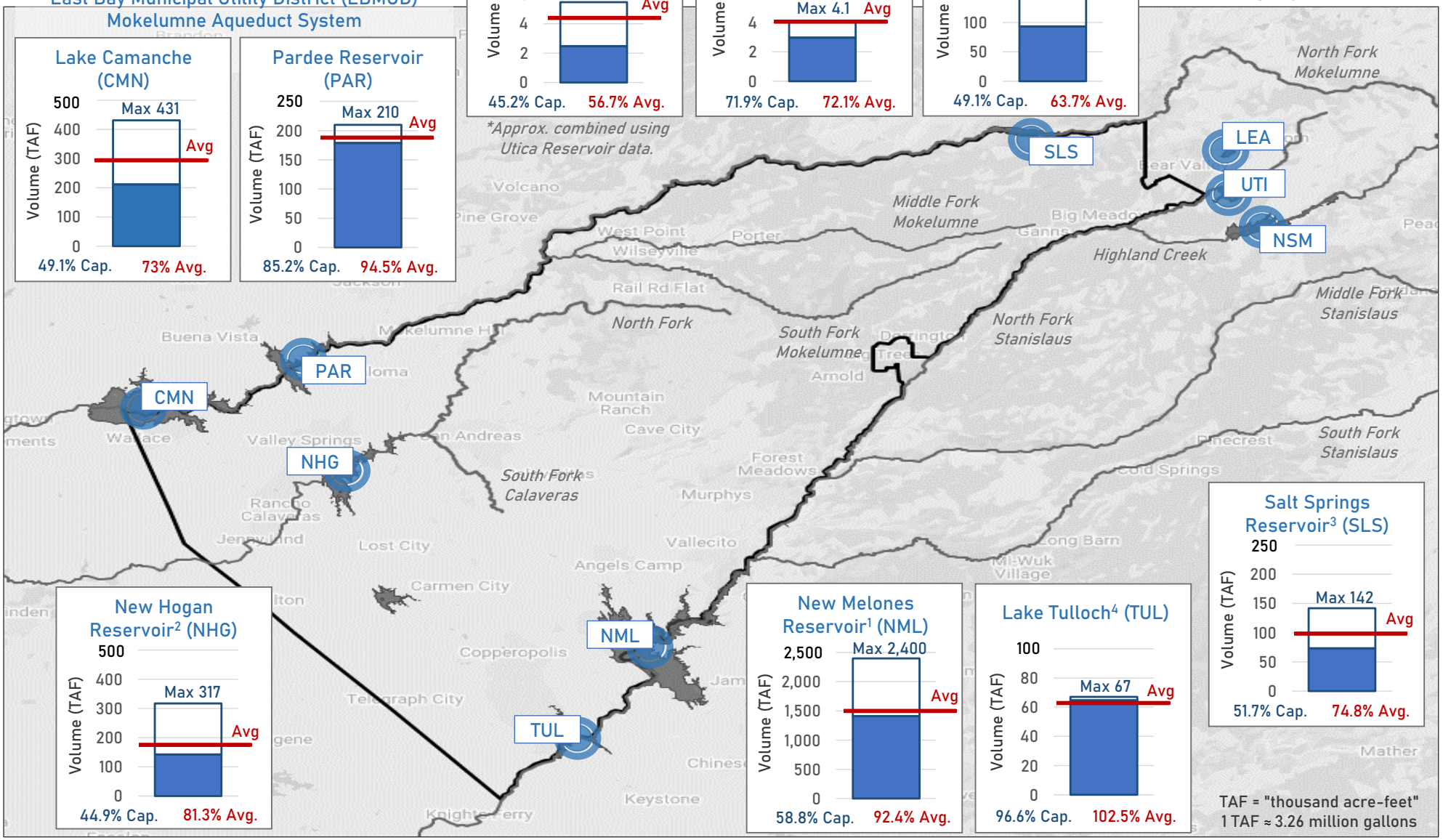
New Spice Meadow Reservoir (NSM)



East Bay Municipal Utility District (EBMUD) Mokelumne Aqueduct System

Lake Camanche (CMN)

Pardee Reservoir (PAR)



New Hogan Reservoir[2] (NHG)

New Melones Reservoir[1] (NML)

Lake Tulloch[4] (TUL)

Salt Springs Reservoir[3] (SLS)

TAF = "thousand acre-feet"
1 TAF ≈ 3.26 million gallons

Note: Figures illustrate major reservoir and lake levels in Calaveras County compared to capacities (cap) and long-term averages (avg).

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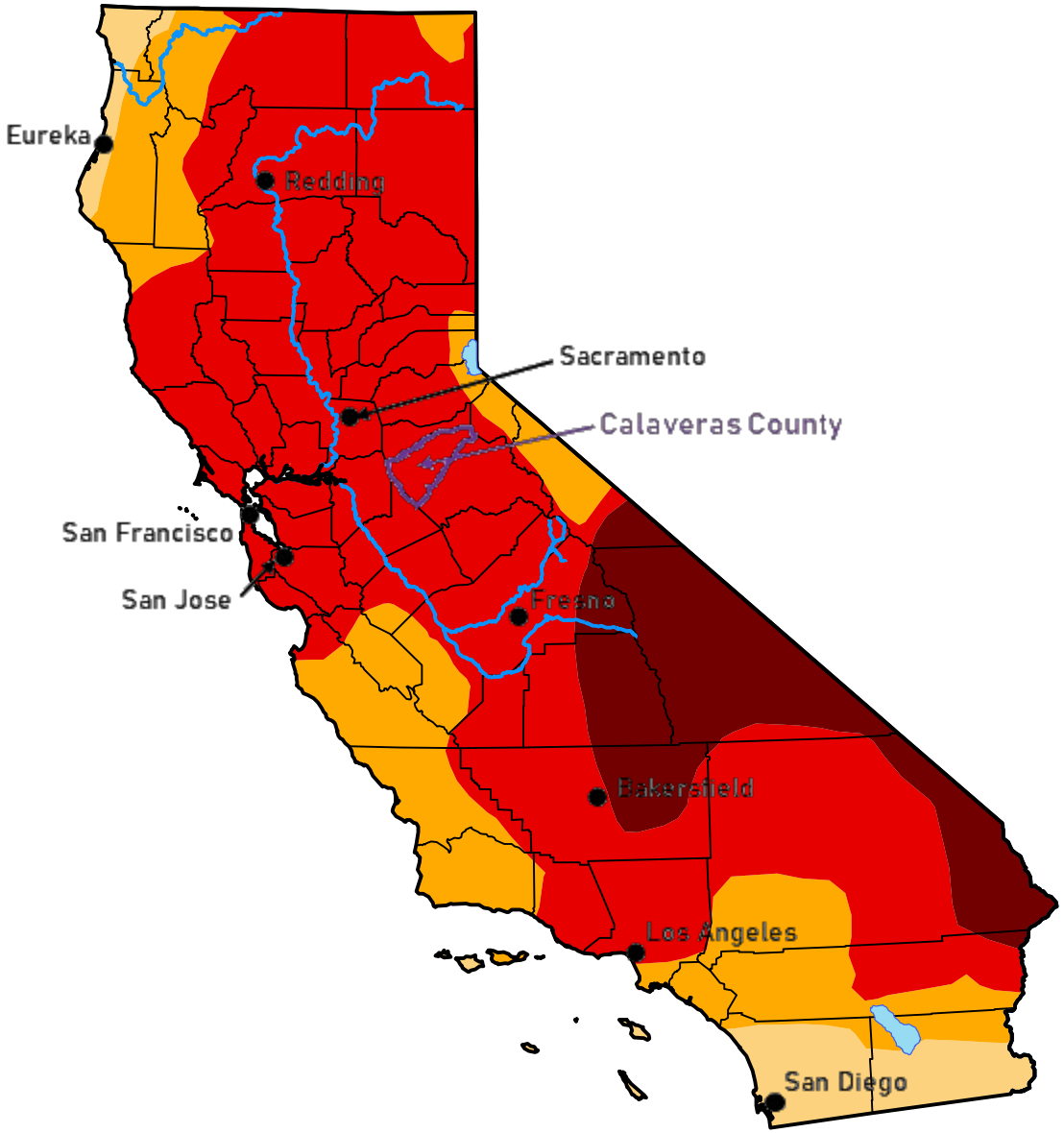
U.S. Drought Monitor

California

May 11, 2021

(Released Thursday, May. 13, 2021)

Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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droughtmonitor.unl.edu